



THE POCKET SCOPE



The Institute of Electrical and Electronics Engineers, Inc.

Volume 52, Number 9

May 2002

SCOPE NOTES

May Houston Section News

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

When:
Thursday, September 26, 2002
6:00 - 6:30 p.m. Social
6:30 - 7:30 p.m. Dinner
7:30 - 8:30 p.m. Speaker

Cost:
\$FREE - 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!

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

IEEE Houston Section
P.O. Box 460014
Houston, Texas
77056-8014



The Chairman's Message

Donald Dunn

I would like to take this opportunity to thank all of the individuals who have worked diligently bringing this years CED program to the IEEE members here in Houston. Many committed volunteers spend numerous hours of their personal time with this national recognized program. Special thanks go to all of the presenters for the 2001-2002 program year. In addition, I would like to specifically thank Roy Cosse, Paul Barrett & Mark Bullian who without their tireless efforts this year would not have been possible.

On behalf of the Executive Committee, I want to extend our congratulations to several individuals from the Houston Section who were elected to the IEEE Senior Member Grade in either March or May (**Jan E Odegard, Suhada Jayasuriya, Marc F. Taylor, Roger E. Tiple, Thanh T. Tran, David T. Vetterick, Zixiang Xiong, Diangxiang Xu**). In 2001 the Houston Section lead Region 5 with the most members upgraded to Senior Member. We would like to hold that distinction again this year. Contact one of the Excom members for more information on upgrading your membership.

The Houston Section will be manning booths at the SWEE-May 2002 and OTC-May 2002 Conferences this year promoting the IEEE. We have had several members volunteer to help us man these booths and promote the IEEE. It is a great way to meet engineers from other companies and network. If you are interested contact one of the Excom members. In addition, the Houston Section CED program will be offering a free seminar on Wednesday 3pm at the SWEE conference. The seminar will be on **"New ANSI Medium Voltage Switchgear Ratings and their impact on Design and Type Testing"**. The presenters of this program are *James E. Bowen* and *Roy E. Cossé, Jr.* Jim and Roy are two of the dedicated volunteers that make the Houston Section CED program such a great success. If you are interested in attending the free seminar RSVP to Donald Dunn @ donald.dunn@ieee.org.

We held our First Annual IEEE Houston Section Scholarship Golf Tournament at the Greatwood Country Club on April 26, 2002. This tournament was very successful and all members in attendance enjoyed a great morning of golf. Stay tuned for news on next year's event and if you are interested in attending or volunteering your time contact one of the Excom members.

As always the Executive Committee and I look forward to your feedback and comments. If you have suggestions and/or are interested in becoming active within the section or a local society chapter, contact one of us. Without the active participation and feedback from you the members, the programs and content of the IEEE would diminish.

IEEE CONTINUING EDUCATION ON DEMAND

2001-2002 REGISTRATION FORM

Name:

Company:

Mailing Address: (where certificate will be delivered)

City/State:

Zip:

Email:

Telephone Voice:

Telephone Fax:

IEEE Membership Number:

Mail a copy of your completed registration form along with your check payable to **IEEE CED SEMINARS** at the following address:

IEEE CED SEMINARS
BEATRIZ REY
ABB Power T&D Company
P.O. BOX #42802
HOUSTON, TX. 77242

Registration receipts will be distributed **at the seminar**.

For a cancellation refund, telephone by the Friday before the seminar:
Contact Beatriz Rey at (713) 821-4027

IEEE Continuing Education On Demand Completion Certificate with Continuing Education Units (CEUs) is provided after receipt of both nightly questionnaires.

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

[http://\(www.ieee-houston.org\)](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 Beatriz Rey at (713) 821-4027.

The following 2001-2002 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:

ABB Power T&D Company
P.O. BOX #42802
HOUSTON, TX. 77242
Contact Beatriz Rey
(713) 821-4027

| Seminar Title | Code | Date | Amount |
|--------------------------------|------|-----------------|--------|
| Factory & Field | 911 | Oct. 2/3 | \$ |
| Stand by Pwr Systems | 115 | Oct. 16/17 | \$ |
| Induction Motors | 601 | Oct. 30/31 | \$ |
| MV & LV Mtr Control | 702 | Nov. 13/14 | \$ |
| Safety by Design | 114 | Feb. 5/6 | \$ |
| Syn Generators | 602 | Feb. 19/20 | \$ |
| Governor Control | 607 | Mar. 5/6 | \$ |
| Excitation Systems | 608 | Mar. 19/20 | \$ |
| MV & HV Cable | 113 | Apr. 2/3 | \$ |
| MV Fuse & Interrupter Switches | 315 | Apr. 16/17 | \$ |
| Applying IEC Standards | 801 | Apr. 30 / May 1 | \$ |
| Total Paid: | | | \$ |

Enter amount for each seminar:

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

2001-2002 IEEE CED Seminar Schedule

Factory & Field Transformer Testing (911)
Waldemar Ziomek, Pauwels Transformers, Inc.
Reviews Techniques and Industry Standards
Oct. 2/3, 2001 6:00-8:50PM
[0.5 CEU]

Standby Power Systems (115)
Brad Roberts, S&C Electric Company
Reviews Theory and Practical Applications
Oct. 16/17, 2001 6:00-8:50PM
[0.5 CEU]

Induction Motors (601)
Charlie Pounds, LBS Engineers
Reviews Practical Applications
Oct. 30/31, 2001 6:00-8:50PM
[0.5 CEU]

Medium & Low Voltage Motor Control (702)
James Bowen, Powell Electrical Mfg. Co.
Reviews Applications and Design
Nov. 13/14, 2001 6:00-8:50PM
[0.5 CEU]

Safety By Design (114)
James Bowen, Powell Electrical Mfg. Co.
Discusses Various Safety Issues
Feb. 5/6, 2002 6:00-8:50PM
[0.5 CEU]

Synchronous Generators (602)
Charlie Pounds, LBS Engineers
Reviews Theory and Techniques
Feb. 19/20, 2002 6:00-8:50PM
[0.5 CEU]

Governor Control (607)
Peter Evjen, Solar Turbines, Inc.
Reviews Theory and Applications
Mar. 5/6, 2002 6:00-8:50PM
[0.5 CEU]

Excitation Systems (608)
Fred Wolf, Basler Electric
Reviews Applications
Mar. 19/20, 2002 6:00-8:50PM
[0.5 CEU]

Medium and High Voltage Cable (113)
Wayne Madden, Okonite Co.
Theory, Applications, Field and Factory Testing
Apr. 2/3, 2002 6:00-8:50PM
[0.5 CEU]

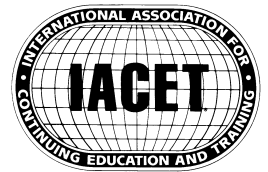
Medium Voltage Fuse & Interrupter Switches (315)
Neville Parry, Cutler Hammer
Reviews Applications and Design
Apr. 16/17, 2002 6:00-8:50PM
[0.5 CEU]



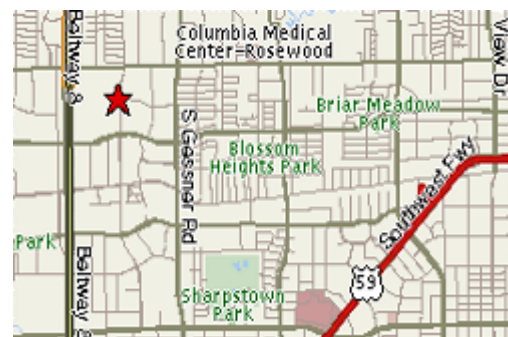
**IEEE
Houston
Section**

2001-2002

**Continuing
Education
On Demand**



Spring 2002 IEEE Seminar Schedule



MAY 9 COMSOC MEETING

Computer and Communications Societies to hold a Joint Meeting

"Deterministic Distribution of Server Infrastructure over a Wide Area Network"

Abstract: Distributed computing infrastructures in large enterprises have become very sizable and complex, sometimes involving 1,000's of servers spread across 100's of sites located in every corner of the globe. Recent enhancements to operating systems allow unified management of a consistent computing environment across the entire enterprise, and some businesses have seen advantage in capitalizing on these improvements. This can result in a complete infrastructure architecture overhaul project of challenging complexity. Many IT departments address the architecture design with philosophy (e.g., total centralization is ideal) or expert opinion, but what happens when these approaches come in direct conflict with business requirements and customer demands? A deterministic (fact-based, analysis-driven) methodology is required. This presentation will describe a case study that applied such a methodology to satisfactorily address conflicting drivers in designing a large-scale server architecture that delivers required service levels across a broad variety of data networking systems and optimizes total costs.

Mike Hinkle -Principal Advisor - Shell Information Technology International

Time and date: 11:30 AM to 1:00 PM on Thursday, May 9th, 2002.

Location: Shell Information Center, 1500 Old Spanish Trail, Houston, TX

Lunch: Lunch may be purchased at the Shell Information Center cafeteria. We'll plan to eat from 11:30 to 12:00 and enjoy the presentation from 12:00 to 12:45.

Please RSVP via e-mail to [Ransom Siler](mailto:Ransom.Siler@shell.com) to reserve a seat at the meeting by 12:00 Noon Wednesday May 9th (Please include your company name). Ransom can also be contacted for more information (including driving and parking directions)

IEEE Virtual Museum

Piscataway, NJ -- Thomas Edison didn't invent the light bulb, so why does everyone think he did? What was the first computer? How did the patterns in a Utah cornfield lead to the development of TV? What is the "X" in an X-ray? Why are Alvin and the Chipmunks part of a museum about technology?

The answers to these questions and more are found in the new IEEE Virtual Museum launched at <http://www.ieee.org/museum>. Designed for educators, pre-college students, and the general public, the virtual museum debuted with two exhibits containing audio and video clips, and interactive features: Socket to Me! How Electricity Came to Be and The Beat Goes On: How Sounds are Recorded and Played.

Three more exhibits are in production and are scheduled for release by third quarter 2002. These will explore the different applications of microwaves, the works of Thomas Edison, and contributions women have made to electrical and information technologies.

The IEEE Virtual Museum explores the global social impact of electrical and information sciences and technologies and demonstrates the relevance of engineering and engineers to society. It is supported by the IEEE Foundation, the IEEE Life Members, and the Trustees of the IEEE History Center.

IAS Chapter Meeting

INDUCTION OR SYNCHRONOUS MOTORS ? PROS, CONS, DIFFERENCES, SIMILARITIES...ETC.

Mr. Broussard is with GE Industrial Systems; C&I Sales will cover AC Induction Motors. Darrell graduated from University Of Houston with a Bachelor in Electrical Engineering, class of 1972. Since graduation he has worked in industrial plants, construction, manufacturing and been an active member of PCIC. For the past 20 years Darrell has worked as a Power System Application Engineer for various departments in General Electric. For the past seven years he as worked in the Motors and Drives department of Industrial Systems.

Mr. Krusemark is with GE Industrial Systems Large Motors. Bob graduated from Texas A & M University with a Bachelor of Science in Industrial Distribution in 1977. His background has been working with various industries and utility customers dealing with compressors, fans, chippers, grinders, pumps, mills, refiners, pulverizers, and other specialty applications. Bob has spent a combination of 18 years working with induction and synchronous motors first with Westinghouse and then GE.

Below is an outline of the seminar:

| | | |
|------------------------|--------------------------|---------------------------------------------|
| Induction Motors | Synchronous Motors | Differences between Induction/Synch. Motors |
| Basic Motor Equations | Basic Motor Design | Applications |
| Motor Temperature Rise | Synchronous Motor Design | Starting Characteristics |
| Enclosures | Efficiencies | Starting Considerations for Synch. Motors |
| Expected Efficiencies | Standards | Exciter Control Panels |
| Efficiency | Rotector | Insulation Systems |

WHERE: Foster Wheeler Building
2020 Dairy Ashford Road
Houston, TX 77077

WHEN: Thursday, May 2, 2002
5:30 - 6:00 PM, Refreshments
6:00 - 7:30 PM, Seminar

RESERVATIONS: Sunita Kulkarni @ 713 235 2833
Email: skulkarn@bechtel.com
or
Julia Dang@ 281-752-3505
Email: Julia_dang@fwc.com

MAY 2002 OTC SHOW

CALL FOR VOLUNTEERS

The Houston Section will be manning a booth at the Offshore Technology Conference (OTC) May 6-10, 2002 at the Reliant Arena. We still could use a few more volunteers to help us man this booth, promote the IEEE, and sign-up new members.

If you are interested contact John Lucey at 713-945-5923 or Donald Dunn 281-452-8809.

MAY 2002 SWEE SHOW

The Houston Section will be manning a booth (527) at the Southwest Electrical Exposition (SWEE) May 7-8, 2002. We need volunteers to help us man this booth, promote the IEEE, and sign-up new members.

The Houston Section will also be presenting a seminar on "**New ANSI Medium Voltage Switchgear Ratings and their impact on Design and Type Testing**" at the show.

Abstract:

An in-depth look at how circuit breakers and switchgear are tested, with an explanation of the published chart of medium voltage ratings. This presentation explains the K factor and %dc and the changes that have occurred. It reviews the changes to the switchgear and breaker standards that happened in the year 2000 and how they impact the newest generation of third party certified equipment.

Presentors:

James E. Bowen received the B.S.E.E. degree from Texas A&M University in 1976. After working for S.I.P. Engineering as a Power Engineer for three years, he joined Exxon Chemicals in 1979. His duties included maintenance, project design, construction follow-up and commissioning for petrochemical and cogeneration processes.

In 1997, Mr. Bowen joined Powell Electrical Manufacturing Company as Technical Director where he provides leadership in the design development of medium voltage switchgear and circuit breakers. Mr. Bowen has presented numerous technical seminars for the IEEE Houston Section Continuing Education On Demand. He is a Professional Engineer in Texas and an active member of the IEEE.

Roy E. Cossé, Jr. received the B.S.E.E. (1968) and M.S.E.E. (1972) degrees from the University of Southwestern Louisiana, Lafayette, Louisiana. He has 30 plus years of Electrical Engineering experience in the Petrochemical, Marine, Pipeline, Cogeneration, and IPP Industries. His experience encompasses conceptual design, detailed engineering, training, startup, maintenance and operations. His specialty is power system analysis. He is a Professional Engineer in Texas and Louisiana.

Mr. Cossé is an IEEE Senior member. He is one of the original organizers of the IEEE Houston Continuing Education On Demand series; and he has presented technical seminars for this program. He has co-authored and presented IEEE conference technical papers. Mr. Cossé is employed by Powell Electrical Manufacturing Company where he is Coordinator for PowlTech Advanced Technical Services.

If you are interested in attending the free seminar RSVP to Donald Dunn @ donald.dunn@ieee.org

If you are interested in helping with the both contact Donald Dunn at 281-452-8809.

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The **Pocket Scope** is the newsletter of the Houston Section of the Institute of Electrical and Electronics Engineer (IEEE). The Houston Section address is: IEEE Houston Section, P.O. Box 460014, Houston, Texas 77056-8014.

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Advertising rates are listed on the IEEE Houston Section website and include publishing in The Pocket Scope, ad on the website, and within the monthly e-mail update.

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

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