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CALENDAR OF EVENTS

For reservations call the IEEE office at 236-4609
(unless otherwise indicated)

COPY DEADLINE: FIRST WEEK OF THE MONTH PRIOR TO PUBLICATION

NOV. 4-6	MIDCON Electronic Show & Convention	IEEE Region 4, IEEE Chicago & Dallas Sections	Dallas Conven. Cte. Dallas, TX	(For info., Dale Litherland in CA, 213: 772-2965)
10	"Large Signal Operation of Micro. FET's"	Antennas & Prop./ Micro. T&T Soc.(j/w Electron Dev. Soc.)	Louis Restaurant 351 E. Lake St. Addison	Social 5:30 PM Dinner 6:30 PM Meeting 7:30 PM
10-11	Chicago Fall Conf. on Consumer Electronics	IEEE Chicago Sec. & BCCE	Ramada O'Hare Inn 6600 N. Mannheim Rd. Des Plaines	(For info., Ray Hayden, 837-4045)
11	Monthly Meeting	IEEE Executive Cte.	Brown & Root Offices 701 E. 22nd St. Lombard	Meeting 7:30 PM
12	"Tim Cullerton Talks About the Chgo. Elecl. Code"	Indus. Appls. Soc. (j/w Engrng. in Medicine & Bio. Soc.)	Nielsen's Village 7330 W. North Ave. Elmwood Park	Social 5:30 PM Dinner 6:15 PM Meeting 7:15 PM
12	"Why Generator Breakers?"	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm.#2,8th fl.	Social 11:30 AM Lunch 12:00 PM Meeting 12:30 PM
19	"Wind Power: Har- nessing a Signif. Solar Energy Res."	Northwest Sub. (j/w Power Engrng. Soc.)	Mr. Peters Rest. Rand Rd. (Shop.Mall) Mount Prospect	Social 6:00 PM Dinner 7:00 PM Meeting 8:00 PM
26	"Speaker Design"	Fox Valley Sub. (j/w Acoustics, Speech & Signal Proces. Soc.)	Elmhurst Inn 933 Riverside Dr. Elmhurst	Social 6:00 PM Dinner 7:00 PM Meeting 8:00 PM
DEC. 9	Monthly Meeting	IEEE Executive Cte.	Brown & Root Offices	Meeting 7:30 PM
10	"Advances in Numerical Control & Machine Tools"	Indus. Appls. Soc. & Control Instrumen. (j/w Fox Valley Sub.)	Nielsen's Village 7330 W. North Ave. Elmwood Park	Social 5:30 PM Dinner 6:15 PM Meeting 7:15 PM
10	"Fiber Optics	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm.#2,8th fl.	Social 11:30 AM Lunch 12:00 PM Meeting 12:30 PM

LOCAL PARTICIPATION NEEDED FOR ISCAS/81 SPECIAL SESSIONS

The 1981 International Symposium on Circuits & Systems (ISCAS) will be held at the Radisson Chicago Hotel on April 27-29. As usual, the regular sessions will provide a forum for the presentation of papers by circuit and system theoreticians and researchers from around the world. In response to feedback from engineers in the Midwest area, special sessions are being designed to satisfy the need for technical information of those who are involved with the applications of circuit theory and techniques to system design. These special sessions might take the form of tutorial presentations, "state-of-the-art" addresses, panel discussions, seminars, etc. Any topic within the broad range of CAS Society interests will be appropriate. A few of the topics already suggested are electrostatic protection, computer-aided design, all types of filter technology, microprocessor hardware/software applications, power systems, RFI protection and digital signal processing. Contact either Ralph Menick of Motorola, Inc., Communications Group at 576-3943 or Vince Formanek, IIT Research Institute, 567-4483.

TIM CULLERTON TO SPEAK AT IAS/IECI MEETING

On November 12, Tim Cullerton, Chief Electrical Inspector for the city of Chicago will talk on the existing and new Chicago Electrical Code. This program will be of importance to anyone involved with electrical installation or related design work. The topic is of special relevance in view of the new innovations being made in electrical equipment and construction methods.

Sponsoring the program is the Industry Applications/Industrial Electronics & Control Instrumentation Society. There is no attendance charge for meeting only and is open to all interested persons. The charge for dinner is \$10 for members and \$11 for non-members. See Calendar of Events for meeting location and time.

IEC HEARS 'THE HARD TRUTH ABOUT OUR ENERGY FUTURE'

As Chicago Section Delegate to the Illinois Engineering Council, John Waters spoke on "The Hard Truth About our Energy Future" at the Executive meeting of the IEC on September 27.

In his talk, Mr. Waters reviewed the problems of our projected energy shortfall over the next 20 years. He analyzed the proposed new energy sources such as solar, geothermal and bio-mass and how these fit into the energy scheme. A positive program was presented to provide the planning for our future energy needs and counter the confusion in the mind of the general public due to the misinformation presented by the popular media.

The purpose of the talk was to motivate all engineers to speak out in a responsible manner on what must be done in the next 20 years to provide the essential energy sources to maintain a viable economy. Mr. Waters is Director of the Illinois Engineering Council, Past Chairman of the Chicago Section IEEE and a Registered Professional Engineer.

"LARGE SIGNAL OPERATION OF MICROWAVE FET'S" TO BE PRESENTED BY DR. ROSENBAUM

Dr. Fred J. Rosenbaum, Professor of Electrical Engineering at Washington University will be guest speaker at the November 10 meeting of the Antennas & Propagation/Microwave Theory & Techniques Society, which will be joint with the Electron Devices Society.

A non-linear model for the GaAs Field Effect Transistor will be described which is suitable for predicting the performance of large signal circuits containing FET's. Example of the use of the model in the design of a narrow-band power amplifier, a frequency doubler, and an oscillator will be presented. Dr. Rosenbaum this year was recognized as a D.E. Evans Visiting Fellow at the University of Queensland, Brisbane Australia. See Calendar of Events for meeting location and time. Deadline for reservations is November 7.

AM I COMING THROUGH LOUD AND CLEAR?

Are you satisfied with the sound of your car or home stereo? One thing that could make it better is improved speaker design. This will be the topic of the Fox Valley Subsection meeting on November 26.

Mr. Gary Sedan, Jensen Sound Laboratories will discuss the technology behind speaker design and will point out what we can look forward to as far as improved quality in speakers for car and home stereos. So if you are thinking about a new stereo system and want to learn a little more about the speaker quality, this meeting is for you. See Calendar of Events for meeting location and time. Deadline for reservations is November 25.

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Professional Activity
UPDATE

CAREER-STRENGTHENING WORKSHOP — ARE YOU INTERESTED?

The Workshop examines ways of improving an individual's technical effectiveness and long-term survivability in his chosen technical environment. This is not only a function of technical capabilities, but also interpersonal factors such as: influence capability, willingness to take risks, career expectations, dealing with bureaucratic constraints, and minimizing routine activities. In the Workshop we will discuss the above topics and strive to help each individual improve his professional performance.

This three-hour Workshop is available through your PAC Committee. Are you interested? Write today: PAC Update, c/o Scanfax, IEEE Chicago Section office, or phone the IEEE Chicago Section office at 312: 236-4609.

WIND POWER AND ITS ENERGY CONVERSION SYSTEMS

The Northwest Subsection, joint with the Power Engineering Society will have the Supervisor of Technical Services for Commonwealth Edison Company, Andrew J. Cider as their speaker on November 19.

The talk will cover the general topic of wind power and wind energy conversion systems (WECS). The history of wind power in the United States and overseas will be discussed, as well as the engineering concepts of wind energy systems. The Federal Wind Energy Program, including demonstration projects now underway will be included in the program, as well as Edison's involvement with wind energy systems and their rate policy as cogenerations of energy. Items such as the U.S. energy potential of wind power, wind distribution, investment costs for WECS, etc. will be discussed. See Calendar of Events for meeting location and time.

ROBERT FRANK NEW RELIABILITY SOCIETY CHAIRMAN

The Reliability Society has a new chairman — Robert Frank of Victor Business Products. Make this change in your 1980-81 IEEE Chicago Section Organization list published last month. His address is 3900 North Rockwell Street, Chicago 60618 (312: 539-8200, extension 289), IEEE membership number is 4153672.

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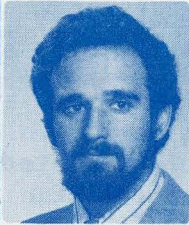


Cryptography & Data Security

Palo Alto, CA February 2-4 • Washington, DC March 23-25

NEW One Day Executive Summary:

Los Angeles January 19 • Chicago March 19 • Boston March 20



Prof. Martin E. Hellman has earned international acclaim for his invention of the revolutionary new 'Public Key' encryption systems. **TIME Magazine** says, "As a result of recent work by Stanford University scientists, ciphers that are for all practical purposes unbreakable can be produced easily. Says **Scientific American** Mathematics columnist Martin Gardner: 'The breakthrough bids fair to revolutionize the entire field of secret communication'. . . Hellman overcame this fundamental obstacle with a dazzlingly simple yet ingenious scheme." Prof. Hellman has also played a leading role in suggesting improvements to the National Data Encryption Standard (DES).

Topics

- Basic Concepts** • Commercial Applications
• Capabilities & Limitations of Cryptography
• Vulnerability of Communications
• Privacy & Authentication

- Cryptographic Systems** • IBM Systems and the National Data Encryption Standard (DES)
• Public Key Systems
• Digital Signatures • Voice Scramblers

- Cryptographic Theory** • Cryptanalytic Threats
• Stream and Block Systems • Trap Doors

- System Implementation** • Key Management
• User Authentication • Error Control
• Threat Analysis • Audit Trails
• Testing and Certification

Application Examples

- Networks and Distributed Processing
• EFTS • Electronic Mail
• Telecommunications and File Encryption

Error Correcting Codes

With Applications to Computer System Design

Palo Alto, CA January 19-21 • Boston, MA March 23-25



Prof. E.J. Weldon, Jr. is known internationally as the co-author of two authoritative yet readable books: Peterson and Weldon's second edition of the classic text **Error Correcting Codes** and Lucky, Salz and Weldon's often referenced **Principles of Data Communications**. Prof. Weldon's extensive practical experience allows him to translate complex mathematical coding techniques into circuitry which can be readily understood and implemented.

"Dr. Weldon was able to explain the intricacies of coding in clear, understandable terms. He's truly an outstanding lecturer." **Jerry Stockton, NAVSEEACTPAC.**

"Prof. Weldon's knowledge of hardware and micro-computers made his lectures on coding extremely useful to me." **Neal Glover, Storage Technology Corp.**

Topics

1. Fundamentals
2. Parity Check Codes
3. Error Correction for RAMs
4. Cyclic Codes
5. Constructing Cyclic Codes

6. Encoding Procedures
7. Decoding Procedures
8. BCH and Reed-Solomon Codes
9. Burst-Correcting Codes

10. Application to Magnetic Disk Memories
11. Application to Magnetic Tape Memories
12. Application to Optical Memories
13. Application to Data Communication

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