

Scanfax

POSTMASTER:
SECOND CLASS POSTAGE
paid at Chicago, Illinois

(Publication number)
(ISSN 0018-9227)

SCANFAX, 125 S. CLARK ST., CHICAGO, IL 60603

Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • March 1982

C A L E N D A R O F E V E N T S

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

COPY DEADLINE: FIRST WEEK OF MONTH PRIOR TO PUBN.

MAR. 8	"Moisture Measurement Using Microwaves"	Antennas & Prop./ Micro. Theory & Techniques Soc.	Louis Restaurant 351 E. Lake St. Addison	Social Dinner Meeting	5:30 PM 6:30 PM 7:30 PM
9	Monthly Meeting - ALL WELCOME	IEEE Executive Cte.	Brown & Root, 701 E. 22nd St., Lombard	Meeting	7:30 PM
10	"Grounding"	Indus.Appls.Soc. & Industl. Electronic Control Instru. Soc.	Nielsen's Village 7330 W. North Ave. Elmwood Park	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM
10	"Automation for Distribution Systems"	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm.2, 8th Fl.	Social Lunch Meeting	11:30 AM 12:00 PM 12:30 PM
18	"EMC-27"	Electro. Compa. Soc. (For reserva., Bob Bard, 298-2290)	Auditorium-Bell Labs. Naperville/Wheaton Rd. Naperville	Social Tour	6:45 PM 7:30 PM
27	Tour - Argonne National Laboratory	Northwest Sub. (Reserva. only)	Argonne Natl. Lab. 9700 S. Cass Ave. Argonne	Tour #1 Lunch Tour #2	9:00 AM 12:30 PM 1:30 PM
29	"Microprocessors in Communications"	Vehicular Tech. Soc. (For reserva., Phil Peterson, 576-3058)	Mr. Peters Banquets 1018 Mt. Prospect Rd. Rand & Central Rds.	Social Dinner Meeting	6:00 PM 6:45 PM 7:30 PM
30	Discussion/Tour	Reliability Soc.	Teletype Corp., 5555 W. Touhy Ave., Skokie	Tour	7:00 PM
31	"Distribution System Harmonics"	Fox Valley Sub. (j/w Pwr.Engrng.Soc.)	Wilton Manor St. Chas. Rd. & Main St. Wheaton	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM
APR. 7	"Non-Flam. Liquid-Filled Transformers"	Power Engrng. Soc.	Carson Pirie Scott	(See 3/10 listing for loca. & time)	
13	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Brown & Root, 701 E. 22nd St., Lombard	Meeting	7:30 PM
17	Recognition Dinner	IEEE Chicago Sec. (For reserva., Chris Ziola, 391-7130)	Hamilton Lakes Stouffer's Hotel Itasca	Social Dinner Enter.	6:00 PM 7:00 PM 8:00 PM
21	Exhibitor's Night	IAS/IECI	Hillside Holiday Inn	4:00 PM-9:00 PM	
22	"BASIC Prog." Sem.	Northwest Sub.	Roll. Mdws. Holiday Inn	7:30 PM-9:30 PM	
24	Midwest Acous.Conf.		Hermann Hall, IIT	9:00 AM-5:30 PM	
26-28	Amer. Power Conf.	PES, IIT & 8 Other Engineering Soc.	Palmer House, State & Monroe Sts., Chicago	(Ralph Armington, 567-3406)	
28	"Electronic Office"	Fox Valley Sub.	Wilton Manor	(See 3/31 listing for loca. & time)	

RELIABILITY CERTIFICATION - The Chicago Chapter of the IEEE Reliability Society will present a 10-week, 10-session refresher course in preparation for the ASQC Reliability Certification examination. Anyone interested in taking this course should contact Hugh Edfors at 369-8038. The exact dates and location of the course will be determined when sufficient response is received.

MORE FAX ON RECOGNITION DINNER

Entertainment at the IEEE Recognition Dinner will be: Bob Higa, magician and illusionist skilled in the sophisticated art of oriental sorcery; Cathy Johnson, singing personality/entertainer who will play a carefully chosen selection of fast paced and mobile tunes from her vast repertoire; music by the Bill Scott orchestra who will play contemporary and classical tunes for your dinner and dancing pleasure. Both Bob and Cathy have traveled with some of the big names in the entertainment world. Cathy has shared the stage with Al Hirt and Bob Hope, entertaining in the U.S. and Canada. Mark your calendar NOW — April 17 at the Hamilton Lakes Stouffer's Hotel in Itasca. Cocktails at 6 PM, dinner 7 PM followed by entertainment and dancing from 8 PM 'til 12 midnight.

In addition to the Fellow awards, outstanding scholastic accomplishment on the part of Electrical Engineering students from Chicago area schools will be recognized. Tickets are \$20 per person and available from any Recognition Dinner Committee member or by calling Chris Ziola at 391-7130. More in the April issue on the Dinner.

"GROUNDING" SUBJECT AT IAS/IECI MEETING

Consultant John Mikos will be guest speaker at the Industry Applications/Industrial Electronics Control Instrumentation Society meeting on March 10. The subject of grounding, its purpose, standards and methods in electrical power systems will be presented. Mr. Mikos currently is involved in studies of safety in applications involving transients and instruments for commercial, industrial and utility electrical power systems. For 43 years, he has been involved in design, development, applications research and testing of switchgear devices, instrumentation and test laboratories.

TOUR THROUGH NEW EMC FACILITY AT BELL LABORATORIES

Bell Laboratories in Naperville will host the Electromagnetic Compatibility Society on March 18. The meeting will feature a tour through the up-to-date EMC facilities. Several engineers and scientists from Bell will be available to illustrate and discuss their new shielded room, transmitters, receivers, fiber optic links, automated systems, etc. A video tape will also be presented illustrating the construction of the facility. Bell Laboratories will host coffee and doughnuts starting at 6:45 PM. For advance reservations, call Bob Bard, EMC Chairman or LaVerne Lauer at 298-2290.

NORTHWEST PRESENTING SEMINAR ON "BASIC PROGRAMMING FOR ENGINEERS"

The Northwest Subsection is presenting a "BASIC Programming for Engineers" seminar to introduce the BASIC Computer Programming Language to engineers and other technical people. It is aimed toward any engineer or group leader interested in automating some of the more mundane tasks of the profession. No prior experience with computers or programming is required. The seminar will be presented as a series of 5 two-hour sessions from 7:30 PM to 9:30 PM on consecutive Thursday evenings beginning April 22. All sessions will be held at the Holiday Inn in Rolling Meadows. Participants will receive a copy of the seminar notes, workbook and in addition, copies of all visuals used. A certificate of completion will be issued at its conclusion. The total fee for the 10-hour seminar is \$95 for IEEE members and \$115 for others, which includes all course materials. The seminar will be conducted by Howard Wm. Myers, President of H. Wm. Myers and Associates of Crystal Lake. He has more than 15 years of industrial experience and instructed Programming and Analysis on several different academic and industrial levels including teaching part-time at McHenry County College for the past 4 years.

SCANFAX, (Publication number) (ISSN 0018-9227), March 1982 Volume 34, Number 7, SCANFAX is published monthly, except July and August by the Chicago Section, Institute of Electrical and Electronics Engineers for the information of its members. Business Office is at 125 S. Clark St., Chicago, Illinois 60603, telephone number (312) 236-4609. Subscription rate for IEEE members collected in dues, \$1.50; for others, \$3.00 per year. Second-class postage paid at Chicago, Illinois.

Unless otherwise specified, Chicago Section IEEE neither endorses nor sanctions any positions or actions espoused in SCANFAX.

John Tyner, Editor
Electrical Energy Management
(312) 469-5534

Tom Traub, Managing Editor
Commonwealth Edison Company
(312) 294-2703

Eleanore Burda, Copy Manager
IEEE Office
(312) 236-4609

Change of Address

A change of address form is included in each issue of SPECTRUM. Your local post office will also supply you with cards; mail to Roseann Schulz, Member Services, IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854. Include your SPECTRUM mailing label if possible. We cannot forward this information for you, so please do not send it to the local office.

STICKING OUR HEADS IN THE SAND WON'T SOLVE THE PROBLEM.

These are tough times. Inflation, high interest, recession, all at one time.

Like most every company today, we've already done every prudent thing possible to cut expenses. But like everyone else, we've been hit by one unrelenting cost increase after another during the past year.

Unfortunately, they're jeopardizing our ability to maintain reliable electric service and meet the future needs of northern Illinois. And bringing us face to face with an enormous problem.

On the one hand, we can stop our plant construction program. Or postpone it.

Or we can keep going, and ask for a nineteen-percent rate increase. Not only to help finish the plants, but also to cover those rising costs.

This won't be popular, and we know it's going to hurt; but that's the course we're forced to take.

Because popularity isn't the issue. The issue is the reason why. Why it's absolutely essential that we finish the nuclear generating stations well underway at Byron, Braidwood and La Salle.

It's not just because of the billions

of dollars stopping construction now would waste. Or the millions of dollars a year it would cost every year we delay. Or that northern Illinois will ultimately need the electricity those plants will produce.

It's because those plants are the best available way to put a damper on rising electric rates. To keep future increases small when they are necessary and below increases in the cost of living.

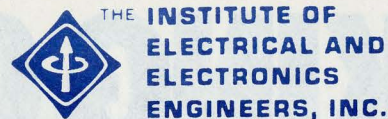
The fact is, the nuclear fuel required to make a kilowatt-hour of electricity only costs one-fifth as much as coal. One-tenth as much as oil. And too much of our electricity is still generated from oil.

So finishing those nuclear plants will eliminate the need for a lot of that expensive coal and oil. Especially the oil. And literally save you billions of dollars in the process.

A coal or oil plant may cost less to put up, but not to operate. When you consider the huge fuel savings over the useful life of these nuclear plants, they're far, far cheaper in the long run.

So in the long run, continuing our construction program is the best solution there is.


Commonwealth Edison
Don't take tomorrow for granted.



CHICAGO CHAPTER IAS-IECI

IT'S FREE!

ANNOUNCING THE
INDUSTRY APPLICATIONS SOCIETY
and
INDUSTRIAL ELECTRONIC CONTROL INSTRUMENTATION
3rd ANNUAL EXHIBITOR'S NIGHT

APRIL 21, 1982
4:00 P.M. to 9:00 P.M.
HILLSIDE HOLIDAY INN
HILLSIDE, IL

ATTEND - Chicago area's showcase of the latest industrial electrical and electronic controls, instruments, supplies, equipment, services, systems and microprocessors

GET - Lots of INFO, IDEAS, "FREEBIES"

SEE - Hands-on demonstrations and displays of state-of-the-art industrial electrical technology

ASK - For the information you need first-hand from the professionals of the industry

COME - Support the companies who support your society and technology. Proceeds from exhibitors will help fund all IEEE-Chicago Section programs

COME SEE US. YOU'LL BE GLAD YOU DID

EXECUTIVE COMMITTEE 1981-1982

John Anich, Chairman
Sargent & Lundy Engineers
55 E. Monroe Street
Chicago, Illinois 60603
269-6012

Keith Klontz, Vice Chairman
McHenry Electric Company, Inc.
4012 West Main Street
McHenry, Illinois 60050
815-385-5530

Edward Barrett, Treasurer
Contemporary Control Systems, Inc.
4949 Forest Avenue
Downers Grove, Illinois 60515
963-7070

Mike Donovan, Secretary
Griffin Pipe Products
2000 Spring Road
Oak Brook, Illinois 60521
521-0705

PAST CHAIRMEN: George Thomas Lance Hillstrom N.R. Orszula Wally Krieger John Waters Dennis Lamont Jay D. Miller R. Loewe

INDUSTRY APPLICATIONS SOCIETY AND INDUSTRIAL ELECTRONICS CONTROL INSTRUMENTATION

Professional Activity

UPDATE

LABOR CERTIFICATION OF IMMIGRANT AND FOREIGN TEMPORARY WORKERS

The Reagan Administration has proposed changes to the Immigration and Nationality Act. The proposal entitled "The Omnibus Immigration Control Act" has bill number S1765 in the Senate and HR 4832 in the House of Representatives. The IEEE is concerned about the proposed changes, that they may limit opportunities for citizen engineers, establish lower wage levels and create a lower standard of engineering competence. The proposed Act would remove the requirement for a case-by-case determination of whether or not a U.S. citizen is available to fill a job position before an alien is certified to work in the U.S. Instead, the Labor Department could use labor market information to determine if there is a shortage of U.S. workers.

On November 30, 1981 Dr. Richard J. Gowen, IEEE Vice President for Professional Activities and Chairman of the United States Activities Board testified on behalf of the IEEE before the Senate Judiciary Subcommittee on Immigration and Refugee Policy. The changes presented to the Subcommittee by Dr. Gowen were unanimously supported by the IEEE Executive Committee on December 5, 1981. The Executive Committee approved the following statement, "...that all engineers and scientists, without regard to race, creed, or national origin, be afforded the highest levels of opportunity to practice their profession commensurate with their individual qualifications; and that those engineers and scientists choosing to practice within the United States be afforded, as a minimum, the same recognition and compensation of similarly qualified persons already practicing in the United States."

Your PAC Chairman, John Waters would appreciate your comments. You may address him c/o IEEE Chicago Section • 125 S. Clark Street • Room 1545 • Chicago, Illinois 60603.

NORTHWEST SUBSECTION TO REPEAT TOUR OF ARGONNE

The Northwest Subsection will have a repeat tour of Argonne National Laboratory on Saturday, March 27. The tour has been arranged to accommodate members and guests who were not able to partake in the tour last May because of space limitations. Participants will be able to attend either a morning tour (9:00 AM to 12:30 PM) or an afternoon tour (1:30 to 5:00 PM). Lunch will be available in the Argonne Cafeteria between tours. The tours will begin with an orientation talk in Conference Room F108 in the High Energy Physics Building & Auditorium (Building 362). Participants should meet in Conference Room F108 before 9:00 AM for the morning tour or before 1:30 PM for the afternoon one. Enter the laboratory grounds at the guard post off of Cass Avenue, one to two miles south of I-55. Directions to Building 362 will be given at the guard post.

Reservations are required and may be made by calling the IEEE office at 236-4609. Please remember to specify citizenship, telephone number and preference of morning or afternoon tour. Each session will be limited to 45 people. Those who attended last May can repeat the tour, if space permits. Those who did not go last May will be given priority. Those who wish to repeat the tour will be contacted during the week of March 22 and advised if space is available. Deadline for reservations is March 17.

KICK-OFF MEETING OF VEHICULAR TECHNOLOGY SOCIETY ON MARCH 29

Mr. Martin Cooper, Vice President and Director of Research and Development for Motorola, Inc. will be the featured speaker at the March 29 meeting of the Vehicular Technology Society. Mr. Cooper's presentation, "Microprocessors in Communications" will be an informative talk on the growth and development of microprocessors and their application to the communications technology. The VTS is looking forward to meeting with its many friends throughout the Chicagoland area for this informative and entertaining evening. For reservations contact Phil Peterson at 576-3058.

The Reliability Society will provide a discussion and tour of Teletype Corporation in Skokie on March 30. Mr. R. A. Waghorne will present Teletype's inspection approach to quality and reliability followed by a tour through their testing area.

TONE IT DOWN!

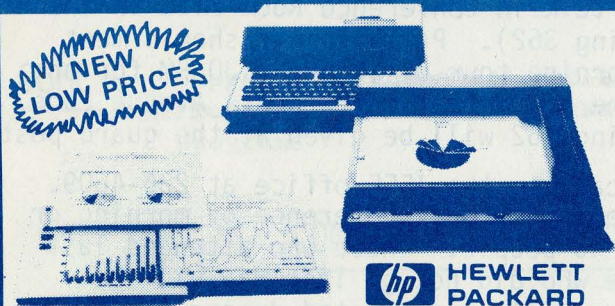
What is the impact of increasing levels of harmonics and noise as industrial, commercial and home loads make further use of static controlled devices to control voltage, speed frequency and power conversion? The Fox Valley Subsection will have as its speaker on March 31, Mark F. McGranaghan, System Engineering Department of McGraw-Edison Power Systems Group. Mr. McGranaghan is involved with both digital and transient network analyzer (TNA) studies for utilities and consultants; topic "Distribution System Harmonics."

"AUDIO TECHNOLOGY FOR VIDEO" TOPIC AT MAC '82

Following its tradition of providing in-depth coverage of important topics in audio and acoustics, the topic for the 1982 Midwest Acoustics Conference (MAC) will be "Audio Technology for Video." Conference location is Hermann Hall, Illinois Institute of Technology in Chicago on Saturday, April 24 from 9:00 AM to 5:30 PM. Featured speakers: Martin Polon, writer/lecturer; Almon Clegg, Panasonic Company; Eb Tingley, Electronic Industries Association; Richard Green, CBS Technology Center. Topics include the following: A Historical Overview of Video/Audio Technology; Audio Production and Transmission Technology for Video; Audio Characteristics of Consumer Video Hardware and Software; Audio Production for Video; Multi-Channel TV Sound; A Consumer Systems Overview; Future Trends in Audio Systems for Video. This year's sponsors are: Chicago Acoustical & Audio Group; Audio Engineering Society; Chicago Regional Chapter of the Acoustical Society of America; Chicago Section of the IEEE; ITT Research Institute.

Several manufacturers of state-of-the-art transducers and instrumentation will be exhibiting and demonstrating their products in addition to the formal presentations planned. For program and exhibition information, contact Hugh Pearl, Beltone Electronics Corporation, 4201 West Victoria Street, Chicago 60646, (583-3600, extension 234).

Power Plus Graphics: HP Series 80 Personal Computers.



Hewlett-Packard's Series 80 systems with graphics can simplify decision making in your business. Built to HP's high standards of quality and reliability, these powerful tools may be just the solutions you're looking for.

Call now for information on HP's
NEW BUSINESS COMPUTER, HP-125



FARNSWORTH COMPUTER CENTER

1891 N. Farnsworth Ave.
(Immediately S. of EW Tollway)
Aurora, IL. (312) 851-3888
WEEKDAYS 10-8; SAT. 10-5

SUPPORT OUR

A
D
V
E
R
T
I
S
E
R
S

DATA DOMAIN

announces

New HP 11C IS HERE

The new Hewlett-Packard 11C (list price \$135, our price \$124) solves math, scientific or engineering problems. Holds up to 203 program lines, 15 program labels and includes user-definable keys, continuous memory and LCD.

**FREE SOLUTIONS BOOK
(\$20 VALUE) & HP CALENDAR
WHILE SUPPLIES LAST**

Mail or phone orders accepted
with VISA or MasterCard.

Featuring:



**HEWLETT
PACKARD**

Professional Calculators

DATA DOMAIN

The Total Computer People

1612 E. Algonquin Road
Schaumburg, IL 60195
(312) 397-8700

Tues. — Fri. 12 to 9 p.m.
Sat. 11 a.m. to 5 p.m.