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CHICAGO SECTION • IEEE • INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

APRIL 1976

CALENDAR OF EVENTS

*For Reservations Call the IEEE Office at 236-4609
(Unless Otherwise Indicated)*

- Apr. 6** IEEE Executive Committee Meeting; Brown & Root Offices, Spring Rd., Oak Brook, Ill., 7:30 PM — ALL WELCOME.
- 7** "Transients in Electric Power Systems — Digital & Analog Simulation — State of the Art," Fox V. Sub. (Joint PES), LeGrand Chalet, 2200 N. Main, Wheaton, Ill., Social Hour 6:30 PM; Dinner 7:00 PM; Meeting 8:00 PM.
- 14** "Nickel Cadmium Storage Batteries & Chargers for Industrial Applications," IECE/IAG, Nielsen's, 7330 W. North Ave., Elmwood Park, Ill., Social Hour 5:30 PM; Dinner 6:15 PM; Meeting 7:15 PM.
- 14** Demonstration Tour GARD Div. of the GATX Corp., VT Group, Dinner at Lums Restaurant, 6701 W. Touhy, Niles, Ill., 5:30 PM; GARD Tour, 7501 N. Natchez, Niles, Ill., 7:00 PM.
- 14** VT Group. Call Dan Clark, 397-1000, ext. 3826 for information.
- 17** Tour of Commonwealth Edison Company's 765 kV Plano Substation, Fox V. Sub., Williamsburg Inn, 9:30 AM; followed by tour; lunch 12:00 noon.
- 20-22** American Power Conference, Palmer House, State & Monroe Sts., Chicago, Ill., All-day sessions. "All Engineers Dinner" Wednesday evening. Contact Dr. R. A. Budenholzer at 567-8196.
- 23** "Ladies Night — Dinner in Sears Tower," Program: "Alaska Communications," MTTG/APS, Sears Tower — Franklin Inn, Cocktails 6:00 PM; Dinner 7:00 PM; Meeting 8:00 PM.
- 29** "Chicago Seven ESS — First of Its Kind," Communications Society, A T & T Headquarters Building, 10 S. Canal St., Chicago, Ill., Meeting 7:30 PM.
- May 2** "Ladies Night," Fox V. Sub., Dinner/Theater Party, Pheasant Run Playhouse, Rt. 64, St. Charles, Ill., Dinner 5:30 PM; Curtain 7:30 PM.
- 4** IEEE Executive Committee Meeting; Brown & Root Offices, Spring Rd., Oak Brook, Ill., 7:30 PM — ALL WELCOME.
- 8** Tour of Commonwealth Edison Company's Collins Station Site, PES, luncheon following at Drake's Farm.
- 12** "Industrial Drives Systems," IECI/IAG, Nielsen's, 7330 W. North Ave., Elmwood Park, Ill., Social Hour 5:30 PM; Dinner 6:15 PM; Meeting 7:15 PM.
- 12** "Regional & Statewide Use of Radio by State & Local Government," VT Group.
- 15** IEEE Recognition Dinner, O'Hare Inn, Mannheim & Higgins Rds., Rosemont, Ill., Social Hour 6:00 PM; Dinner 7:00 PM.
- 19** Bus Tour of Accelerator Research Facilities Div., Argonne National Lab., NW Sub., departing Randhurst Shopping Center in Mount Prospect, Ill., 6:30 PM.
- 27** "Model 40 & System Applications" presented by Communications Society at Teletype Corp.

Deadline for copy: One month before date of issue

TRANSIENTS IN ELECTRIC POWER SYSTEMS

Digital and Analog Simulations — State of the Art.

That is the title of the program of the joint April meeting of the Chicago Chapter of the Power Engineering Society and the Fox Valley Subsection. The speaker will be R. G. Rocamora of the McGraw-Edison Company.

The costly insulation requirements of modern power systems has stimulated the development of sophisticated tools for evaluating transient overvoltages in these systems and methods to control them. Preliminary to discussing simulation techniques, Rocamora will identify different types of transient phenomena and their importance in transmission system design and insulation reduction. Digital and analog simulation techniques will be described and their relative merits discussed.

The Fast Fourier Transform will be shown to be a powerful tool for engineers analyzing transient phenomena and traveling wave problems. The talk will conclude with a description of the development of a digital and analog model for surge propagation in pipe-type cable.

The meeting is on Wednesday, April 7, to begin with a social period at 6:30 P.M., dinner at 7:00 P.M. and the program at 8:00 P.M. The cost for dinner is \$7.00 and a cash bar will be available.

The meeting place is at the LeGrand Chalet in Wheaton, Ill., located on Main Street at Geneva Road.

For reservations, please call 236-4069 by Friday, April 2. Attendance is not limited to members.

FOX VALLEY SPONSORING LADIES NIGHT

The Fox Valley Subsection, Chicago Chapter, cordially invites you to attend a Dinner/Theater Party on Sunday, May 2. Pheasant Run Playhouse on Route 64 (North Avenue) in St. Charles, Illinois is the locale.

The play is "Fallen Angel" starring Joan Blondell and Hermione Baddelley. Cost is \$11.00 per person, including tax

PHEASANT RUN DINNER/THEATER PARTY

Name_____

Enclosed is \$_____ covering_____ tickets @ \$11.00 each.

Mail reservation form to: Charles Brigham / 604 N. West St. / Wheaton 60187

GARD DEMO/TOUR FOR RELIABILITY GROUP

The IEEE Reliability Group of Chicago will meet on Wednesday, April 14 for a demonstration tour of the non-destructive testing and diagnostics facility and equipment in use at the GARD Division of the GATX Corp. GARD has a well equipped laboratory with capability in ultrasonics, eddy currents, X-rays, magnetic particles, acoustic emission and many other nondestructive techniques used to investigate fracture mechanics and other failure problems.

GARD also has a scanning electron microscope (SEM) which has been used for the inspection of failed integrated circuits. Failure analysis of failed electronic parts has proven to be a valuable technique for promoting improved reliability by calling attention to minute manufacturing flaws with the purpose of obtaining corrective action or revising existing specifications. A demonstration of the SEM as it pertains to integrated circuit evaluation will be part of the facility tour.

All members as well as non-members of the IEEE are invited to attend the meeting held at GARD, INC., 7501 North Natchez, Niles, Illinois beginning at 7:00 P.M. Natchez is a north/south street running for 2 blocks between Howard Street and Gross Point Road and one block east of Caldwell Avenue. For those who wish to meet us for an informal dinner gathering, we will be meeting at LUMS Restaurant, 6701 West Touhy, Niles, starting at 5:30 P.M. Please make reservations for tour or dinner at the IEEE office, 236-4609.

and gratuity. The ticket cost includes your choice of a complete chicken, beef, pork or fish dinner. Dinner 5:30 PM, curtain 7:30 PM.

Early reservations are suggested. Complete the reservation form below and return it with your check made payable to the IEEE. Deadline for reservations is April 22. Tickets will be held at the door.

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Meeting Reservations

Remember that the IEEE office, (312) 236-4609 will take your meeting reservations. Call anytime between 8:00 AM and 5:00 PM, Monday through Friday.

The meeting coordinator for any group should call and leave his number with the office, so they can refer questions on matters other than reservations.

Change of Address

If you have moved — or are about to move — please notify the IEEE office in NEW YORK. Our SCANFAX mailing labels come from there, and we cannot update your mailing address locally in Chicago.

A change of address form is included in each issue of SPECTRUM. Your local post office will also supply you with cards; mail to Emily Sirjane, Membership Services, IEEE, 345 E. 47th Street, New York, NY 10017. Include your SPECTRUM mailing label if possible. We cannot forward this information for you, so please do not send it to the local office.

CHICAGO SECTION ELECTION OF OFFICERS

The Chicago Section Nominating Committee has selected the following slate for the officers and Executive Committee for the 1975-76 season. Please mark your choices on the ballot below and return the ballot to James Ralston, at the IEEE Office. If you wish to vote for another member, write in the name in the space provided and check box.

OFFICERS

Chairman: ☐ Paul E. Jahn
Commonwealth Edison Co.
☐ _____
(write-in)
Vice Chairman: ☐ Robert A. Waghorne
Teletype Corp.
☐ _____
(write-in)
Treasurer: ☐ John E. Waters
Bussmann Mfg.
☐ _____
(write-in)
Secretary: ☐ Charles Hatstat
Sargent & Lundy
☐ _____
(write-in)

FOX VALLEY TOURING PLANO

Plano is the second 765/345Kv TSS in the Commonwealth Edison Company bulk power system. This multi-million dollar facility is in the final stages of construction and is scheduled for service in June of this year. A tour of the 765 and 345Kv switchyard will be conducted following the speaker's discussion of the planning and design criteria involved with this new TSS.

The speaker, Roman Spsychalski has worked for Edison since 1965 in various departments, including assignments in Operational Analysis, System Planning, Distribution Engineering and Station Electrical Departments. Roman, a principal engineer in the Transmission Substation and Station Terminal Design section of the Station Electrical Department, has design responsibility for the 765-345Kv Plano TSS.

Scheduled is coffee and a discussion at the Williamsburg Inn beginning at 9:30 AM, followed by the tour, then returning to the Inn for a wrap-up, questions and lunch, beginning at 12 noon. The date is Saturday, April 17.

EXECUTIVE COMMITTEE

☐ George W. Austin
Commonwealth Edison Co.
☐ Mike Barnes
☐ Paul N. Geiger
Allen-Bradley Co.
☐ Niles Larson
☐ John Logeman IV
Victor Research
☐ Edward Osterberg
Illinois Bell Telephone Co.
☐ Howard L. Wolfman
Teletype Corp.
☐ _____
(write-in)
☐ _____
(write-in)

Send the ballot to: James Ralston, IEEE Office, 125 S. Clark St., Chicago, Ill. 60603. Ballots must be received no later than April 15. Results will be announced in the May issue.

AT&T LONG LINES TURNS ON ITS 1ST 4-ESS

The world's highest capacity system for switching long distance telephone calls at the unprecedented rate of 150 calls per second was cut into service on January 17, 1976 in Chicago. Mr. G. Douglas Johnson of Bell Telephone Laboratories, Naperville Illinois and Mr. Larry Wons of AT&T Long Lines, Chicago Toll 7 office will talk on this new super switcher.

The No. 4 Electronic Switching System (ESS), can route up to 550,000 calls an hour or four times as many as the most advanced electromechanical toll switching equipment used by the Bell System today.

The system uses time-division switching instead of the traditional space-division technique. Words and data are transmitted in digital pulses, which travel in a common switching path, separated by millionths of a second. Switching is accomplished by shifting a call's time position on the path. In addition, the system can switch digital signals in the proper format directly, without proper conversion to the traditional analog form.

The meeting will be held on April 29, 1976 at the AT&T Long Lines building at 10 South Canal Street in Chicago, Dinner (a hot buffet for \$6.50) will be at 6:30 PM and the meeting at 7:30 PM. Tours

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will be available starting at 5:30 PM for the early 'arrives'.

For reservations call 727-3339 before April 23, 1976, reservations are limited to 100. (Also, May 27-meeting at Teletype Corp., Model 40 & System Application.)

MTT/APS GOING TO THE TOP

"Ladies Night — Dinner in Sears Tower" is scheduled for Friday, April 23 in the Franklin Inn of Sears Tower by the Microwave Theory & Techniques Group/Antennas & Propagation Society.

The featured speaker at this very special meeting will be Robert M. Walp, Director, Alaska Telecommunications Office. He will talk on "Alaska Communications."

After the meeting, arrangements have been made to scale the world's tallest building and view the sights. Also arranged is to see one of the world's most powerful TV transmitters, and then the Ten O'clock News from the top of Sears Tower.

Prime ribs or roast tom turkey will be the menu offering. Reservations are a must and should be called into the IEEE office, 236-4609.

THE MEASUREMENT OF SOUND FIELDS

AND THEIR EFFECT ON PEOPLE

MAC 76 midwest acoustics conference

*a comprehensive one-day
conference exploring the use of
modern signal processing and data
reduction technology to solve
the new technical and legal
problems in acoustics*

SATURDAY MAY 1, 1976

NORRIS CENTER
NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

PROGRAM McCormick Auditorium

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|-------|--|------|--|
| 8:15 | Registration Opens | 2:30 | SOLUTIONS TO COMMUNITY NOISE PROBLEMS USING STATISTICAL SAMPLING. Howard R. Schechter, IIT Research Institute. |
| 9:00 | Welcome to conference. Harry O. Saunders, President MAC 76. | 3:00 | Coffee break |
| 9:20 | TECHNICAL CHALLENGES AND IMPACTS OF ACOUSTICAL MEASUREMENTS. David S. Pallett, National Bureau of Standards. | 3:30 | MODERN TECHNIQUES IN PSYCHOACOUSTIC RESEARCH — COMPUTER SYNTHESIS OF ACOUSTIC STIMULI. Frederic Wightman, Northwestern University. |
| 10:20 | Coffee break | 4:00 | MEASUREMENT OF NONLINEAR CHARACTERISTICS IN CORNET TONE SPECTRA. James Beauchamp, University of Illinois at Urbana-Champaign. |
| 10:50 | ADVANCES IN TECHNIQUES OF ACOUSTIC MEASUREMENTS. George C. Maling, Jr., IBM. | 4:30 | ACOUSTIC MEASUREMENTS IN THE CONCERT HALL. R. Lawrence Kirkegaard. R. Lawrence Kirkegaard and Associates. |
| 11:50 | Lunch. Demonstrations and exhibits will be open. | 5:00 | End of Conference. Closing comments. |
| 2:00 | SOUND POWER LEVEL MEASUREMENTS OF MACHINES IN NON-IDEAL ACOUSTIC ENVIRONMENTS. C. L. Holmer, National Bureau of Standards. | | |

FACILITIES: The auditorium, exhibit rooms, restaurant, and lounges are all within Norris Center. Free parking is available adjacent to the Center.

ADVANCE REGISTRATION — \$5.00 Complete lower portion and mail with remittance before April 23, 1976. Pick up badges at the Registration Desk on the morning of the conference.

REGISTRATION AT CONFERENCE — \$6.00 Complete portion below and present at conference Registration Desk together with remittance.

STUDENT REGISTRATION AT CONFERENCE — \$2.00 Complete portion below and present at conference Registration Desk together with remittance. You must show valid student I.D. card.

Advance registrants should make checks payable to MIDWEST ACOUSTICS CONFERENCE. Mail lower portion with remittance to: Midwest Acoustics Conference, c/o IEEE — Room 1545, 125 S. Clark St., Chicago, Illinois 60603.

CUT HERE

MIDWEST ACOUSTICS CONFERENCE
Saturday, May 1, 1976

Check here ☐ for student registration

For additional registrations, please
duplicate information on this page.
Office copies are O.K.

Name _____

Company/School _____

Mailing Address _____

City _____ State _____ Zip _____