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CHICAGO SECTION · IEEE · INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

MAY 1974

Section Luncheon Meeting



Now that the energy crunch seems to be waning, it's a good time to sit back and put the whole energy picture into perspective. Where are we now? Where are we going? How do we get there? At the May 21 Section Luncheon meeting, Rene H. Males, manager Commonwealth Edison Company, will talk on "The National Energy Picture and its Socio-Economic Implications."

Males will answer these and other questions from the electric utility point of view — taking into account the socio-economic constraints, including environmental considerations. There will be time for questions from the audience after this talk.

Rene H. Males is manager of general service, Commonwealth Edison Company. He has been with the company since 1956, serving principally in financial, administrative, and customer

service areas. He assumed his present position in 1973.

He has also served as a member of the Federal Power Commission to update the National Power Survey and as a member of the National Academy of Engineering committee on power plant siting. A graduate of Ripon College, he received an MS in business administration from Northwestern University.

There will also be a short business meeting before the program, for the election of section officers for the 1974-75 season.

Meeting will be held at the Chicago Engineers Club, 314 S. Federal Street. Cocktails at 11:30 a.m.; lunch at 12 noon; meeting at 12:30 p.m. Cost of lunch is \$3.75; cocktails cost \$1.25 each. For luncheon reservations, call the IEEE office, 263-5954.

CALENDAR OF EVENTS

IEEE OFFICE: 263-5954

- May 5 "Kiss or Make Up"; Fox Valley Ladies Day; Shady Lane Playhouse (Page 3)
- May 8 "Solid State Contactors and Relays"; IAS/IECI: Nielsen's Village, 7330 W. North Ave., Elmwood Park, Ill.
- May 6-10 1974 National Computer Conference; McCormick Place. (Page 3)
- May 14 "DynaTAC and the 900 MHz Band"; Vehicular Technology; Sheraton O'Hare, 6810 N. Mannheim Road, Rosemont, Ill. (Page 2)
- May 15 Tour of NAL; Northwest Subsection; Batavia Ill. (Page 2)
- May 18 Midwest Acoustics Conference; Northwestern University, Evanston, Ill. (Page 4)
- May 21 "The National Energy Picture and its Socio-Economic Implications"; Section Luncheon meeting; Chicago Engineers Club, 314 S. Federal Street, Chicago. (Page 1)
- May 22 "Clinical Applications of Ultrasound in Chicago"; Engineering in Medicine and Biology; Loyola University Medical Center, 2160 S. First Ave., Maywood, Ill. (Page 3)
- June 11-12 Chicago Spring Conference; Marriott Motor Hotel

Deadline for copy: First week of month preceding publication

Recognition Dinner Sponsors

The Chicago Section, and the IEEE Recognition Dinner Committee specially thanks the following sponsors who helped make the 1974 Recognition Dinner a success.

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NW Subsection to Tour NAL

On Wednesday, May 15, the Northwest Subsection will meet at the National Accelerator Laboratory, Batavia, Ill. The meeting will open with the election of officers for the 1974-75 season. Following the election, a slide-lecture orientation will be presented. This will include discussion of some of the work now being done at this National Laboratory. The meeting will end with a tour of the facilities. Meeting and election start at 7:30 p.m.

A bus to NAL will leave Randhurst Shopping Center at 6:30 p.m. Price of \$5.00 for the round trip includes a chicken box supper and refreshments. Reservations must be made for the tour and the bus trip before May 14. For reservations, call 263-5954.

Northwest Subsection to Elect Officers

The Northwest Subsection will elect officers for the 1974-75 season at the May 15 meeting, to be held at the National Accelerator Laboratory, Batavia.

The slate to be presented by the nomination committee is: chairman, Henry A. Pahl; vice chairman, Betram W. Boumbach; secretary, Robert Goetz; treasurer, Robert Scheman. Members may make additional nominations by written petition, containing at least 10 signatures, prior to the May 15 meeting.

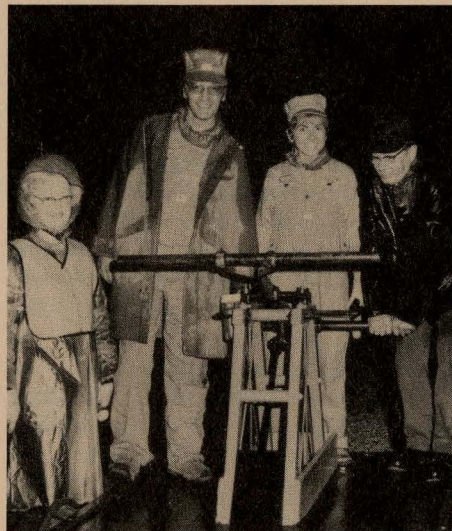
Vehicular Technology

Andrew Daskalakis, Motorola, Inc., will discuss "DynaTAC and the 900 MHz Band" at the May 14 meeting of the Vehicular Technology Group. Daskalakis is resources manager for the Multiple User Systems Department at Motorola.

Meeting will be held at the Sheraton O'Hare, 6810 N. Mannheim Road, Rosemont, Ill. Social hour, 6:30 p.m.; dinner, 7:00 p.m.; program, 8:00 p.m.

For reservations, call Dan Clark, 397-1000, ext. 2100, or the IEEE office, 263-5954.

In Memorium



Betty Fey, Joe Carbonara, Ramona Carbonara, Ed Fey

It is with deep regret that I'm writing this article since it reports the untimely passing of Ed Fey on April 2, 1974. He was a fellow member of the IEEE Treasure Hunt Committee.

Ed Fey devoted much of his free time working on the IEEE Treasure Hunts and serving with his wife Betty on many committees from the time of the Ken Jarvis Treasure Hunts to the present.

His achievements in providing "spectacular" clues are too many to mention. His most recent was, the "railroad hand car", which he personally rebuilt for the 1973 Treasure Hunt.

Speaking for all members, past and future, we will miss Ed Fey as a friend, and member of the Treasure Hunt Committee.

DuMonte Voight,
Chairman 1973
Treasure Hunt

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Meeting Reservations

Remember that the IEEE office, (312) 263-5954, will take your meeting reservations. The best time to call is between 9:30 a.m. and 12:30 p.m. or between 2:30 p.m. and 5:00 p.m.

The meeting coordinator for any group should call and leave his number with Olga at the office, so she 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.

Plans Progress for United Nations University

A United Nations University will soon be a reality, according to a recent announcement by Yasahi Akashi, Senior Officer in the Executive Offices of the Secretary-General, with the first session of the newly appointed university council scheduled for later this month. One of the council's initial tasks will be to recommend candidates for the post of Rector, who will be the chief academic and administrative officer of the university. The Rector, to be appointed by the Secretary-General by mid-1974, is expected to assume the post by October — thus setting into motion an actual operating schedule.

The idea of an international university was first brought up by U Thant in 1969, and since that time has been considered annually by the General Assembly. The decision to establish the university was made in 1972, and at its 28th session, in 1973, the General Assembly adopted the Charter of the United Nations University and recommended, among other items, that the university center be located in Tokyo, Japan.

Otherwise, the university will be decentralized, with units distributed around the world undertaking post-graduate studies on such subjects of worldwide interest as marine biology, pollution of the sea, natural resources, energy, flood control, and population research. Approximately 30 countries and several universities have proposed various institutes or subject matter for the new university.

Not a degree-granting institution or a

"Clinical Applications of Ultrasound"

C. J. Reynes, M.D., Loyola University Medical Center, will talk on "Clinical Applications of Ultrasound in Chicago" at the May 22 meeting of the Engineering in Medicine and Biology Group.

Diagnostic ultrasound is a rapidly developing field in which advanced technology is being applied to improve instrumentation for non-invasive visualization of structures and organs. Acoustic energy levels well below that which causes tissue damage are used, and through high frequency transducers resolution is continually being improved. Radiology, nuclear medicine, pathology, obstetrics and gynecology, neurology, and ophthalmology have somewhat different requirements, but involve similar instrumentation.

university in the traditional sense, the United Nations University essentially is designed to bring together scholars, researchers, and trainees, at the post-graduate level only, to participate for short periods of time in joint study, and to give them the opportunity to visit the various units to meet their counterparts and discuss topics of mutual interest.

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Harza Appointments

Harza Engineering Company, consulting engineers, Chicago, has appointed four new Associates to the firm. They are: David E. Kleiner and Dr. William Ying-Jer Shieh, both with the firm for 15 years; Richard L. Meagher, with Harza for 18 years; and Leo V. Boggis, a 23-year veteran with the consulting firm.

The program will focus on clinical applications in a number of areas, including echocardiography and ophthalmology. Dr. Reynes, others on the Loyola staff, and representatives of other Chicago area institutions using ultrasound in clinical applications, will participate in the program, during an informal discussion and social hour.

The meeting will be held at 7:30 p.m., on Wednesday, May 22 in the amphitheater, lower level of Medical School, Room 0712, at the Loyola University Medical Center, 2160 S. First Avenue, Maywood, Ill. Park north of the medical center, or between the medical school and the hospital (in the patient parking areas).

National Computer Conference, May 6-10

George Glaser, President of the American Federation of Information Processing Societies, Inc. (AFIPS), will deliver the opening Keynote Address at the 1974 National Computer Conference & Exposition, May 6-10, in McCormick Place. The Keynote session will be held Monday morning, May 6 at 10:30 A.M. in the Earl J. McMahan Room (Room 66W).

Mr. Glaser had been scheduled to deliver the AFIPS Presidential Address Thursday, May 9. This change has been made in view of the special address which will be given on May 9 by the Honorable Gerald R. Ford, Vice President of the United States, who will deliver his speech at 12 noon in the Arie Crown Theater at McCormick Place.

In his Keynote Address, Glaser will explore a number of significant trends in the computer field including the increasing diversity and complexity of computer applications throughout U.S. industry and government, the continuing onslaught of recent and impending technological development, plus a humanistic view of the consequences of widespread dispersion of low-cost computing power and the evolving responsibilities of the computing profession and the individual computer professional.

"Kiss or Make Up"

The Fox Valley Subsection will celebrate Ladies Day on Sunday afternoon, May 5, at the Shady Lane Playhouse. Bring your wife or girlfriend to Sunday dinner, followed by the delightful, side-splitting comedy "Kiss or Make Up."

Dinner includes choice of five entrees, salad, dessert, and beverage. Cost, for dinner and play is only \$8.00 per person. For a lovely Sunday afternoon, come to Shady Lane Playhouse.

Dinner starts at 2:30 p.m., followed by the play. Shady Lane is near Marengo, Ill. Exit the Northwest Tollway at Route 20 (Marengo Hampshire exit). Turn left on Route 20 (westbound) and continue through Marengo. Shady Lane is three miles past Marengo on the lefthand side of the road.

Make checks for \$8.00 per person payable to Fox Valley, IEEE. Mail to Chuck Borchert, 323 Indian Drive, Glen Ellyn, Ill. 60137. Tickets will be held for you at the Playhouse.

NSF Director, H. Guyford Stever to Keynote 1974 ISA Conference & Exhibit

Dr. H. Guyford Stever, director of the National Science Foundation (NSF), will deliver the Keynote Address opening the 1974 Instrument Society of America (ISA) International Conference & Exhibit on October 28 at the New York Sheraton Hotel.

Following Dr. Stever's address, the 1974 ISA Exhibit will open at the New York Coliseum, and Conference Technical sessions will begin at 2:30 p.m. in the New York Sheraton Hotel. The four-day ISA Conference & Exhibit, from October 28 through October 31 is the

only event in the United States Focusing exclusively on instrumentation, measurement and automatic control systems and equipment.

Dr. Stever became NSF director in February, 1972, following his nomination by the President to a six-year term and his unanimous confirmation by the Senate.

Additionally, he has been named by the President as Science Adviser and Chairman of the Federal Council for Science and Technology.

Minority students invited to "experience" engineering

A two-week summer program designed to motivate members of minority groups to consider engineering as a possible career has been announced by the Engineers' Council for Professional Development. Funds for the Minority Introduction to Engineering (MITE) program have been made available to ECPD through RCA, Du Pont, Kodak, Olin, and Standard Oil of Indiana to support ten programs of 40 students each at ten engineering colleges across the United States in 1974.

Patterned after the Inner-City

Engineering Orientation Program in effect at the University of Illinois since 1969, a typical MITE program is a two-week in-depth on-campus exposure to engineering for minority-group members entering their senior year of high school. Anyone who knows of such a student who might benefit from a live-in two-week experience on an engineering campus, can obtain an application form from: Dr. L. S. Senhouse, Jr., Associate Guidance director, Engineers' Council for Professional Development, 345 East 47 Street, New York, N.Y. 10017.

Midwest Acoustics Conference, May 18

Experts in tape and disc reproduction will discuss the future roles of each medium during the eighth annual Midwest Acoustics Conference, Saturday, May 18, at Norris Center, Northwestern University, Evanston. Impartial judgment criteria will be developed by the speakers. Ernest Schonthal, Bruel & Kjaer, will speak on "Amplitude and Spectral Characteristics of Music from the Standpoint of the Concert Listener." Marvin Camras, IITRI, will discuss "Critical Parameters of a Music Program Record Playback Medium and One's Sensitivity to Deviations from the Ideal." Current disc and tape performance and quality levels will be explored by John Bitner, Wakefield, and Douglas Thornton, Maniton Systems. Panel discussions on "What Can and Should We Do About Where We Are Going?" will include technical representatives from the principal manufacturers and independent consulting engineers.

Advance registration is \$4.00. Send check payable to Midwest Acoustic Conference to: H. Messerschmidt, Western Electric Co., 4513 Western Ave., Lisle, IL 60532.

Communications Society (S-19) Election

Members of the Chicago Chapter, IEEE Communications Society are requested to fill out the following ballot for 1974-75 officers and return it to George Wendt at Teletype.

Communication Society (S-19)
1974 - 1975

Nominees for office

Fred Goodman — Illinois Bell Telephone — Chairman ☐

_____ ☐

Dean A. Dion — Automatic Electric — Vice-Chairman ☐

_____ ☐

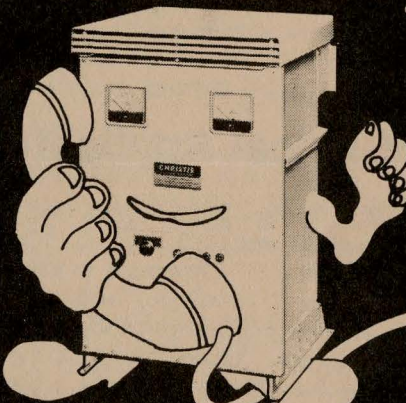
Jayant Hemmady — Automatic Electric — Secretary ☐

Others (write-in) _____ ☐

Please return ballots to

George Wendt
Chairman, Nominating Committee
c/o Teletype Corporation
Department 9253
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*Charter Member Exhibitor

APPLICATION SALONS

Salon A—RCA Solid State Div.

Salon B—Motorola Semiconductor Products, Inc.

Salon C—Fairchild Semiconductors



CHICAGO Spring Conference

ON BROADCAST AND TELEVISION RECEIVERS

TENTATIVE PROGRAM

June 10-11, 1974

MARRIOTT MOTOR HOTEL

The Fifteenth Chicago Spring Conference on Broadcast and Television Receivers will be held June 10 and 11, 1974. Members of the IEEE, and others interested are cordially invited to attend.

The Conference will be held at Marriott Motor Hotel, 8535 W. Higgins Road, Chicago, Illinois 60631, which features complete hotel facilities, and can be reached from downtown Chicago via the John F. Kennedy Expressway in 20 minutes, or from the O'Hare Airport directly by free limousine service. Please reserve your room BEFORE May 25 as our reserved room reservation block will be released on that date.

MONDAY — A.M. — JUNE 10, 1974

**SESSION I
TELEVISION TUNING SYSTEMS 9:30 A.M.**

Session Chairman: Bernie Schlachter
Motorola Consumer Products
Division

- A. *Frequency Synthesizers for Television Receivers*
by Peter Alfke, Eric Breeze, Chris McFee,
Dennis Morris, Joe Rothstein of Fairchild
Semiconductor
- B. *A Medium Cost PLL Varactor Tuning System
Utilizing Off-The-Shelf Logic*
Jade Alberkrack, Steve Hilliker. Motorola
Semiconductor Products
- C. *Programmable TV Receiver*
N. Kokado, S. Makino, Y. Kudo, H. Tajiri.
Toshiba R. & D.
- D. *Integrated Circuit System for Channel Selec-
tion of Varactor Tuned Television Receivers*
Robert W. England, Texas Instruments
Jeff Puskas, Johnny Collins, Zenith Radio
Corporation
- E. *SAS 580, SAS 590, IC's For Touch Control*
Walter Spichall, Siemens

Luncheon — 12:30 P.M. to 1:45 P.M.

Guest Speaker: Consumer Product Safety
Commission Representative

MONDAY — P.M. — JUNE 10, 1974

SESSION II COLOR TELEVISION 2:00 P.M.

Session Chairman: Peter G. Portoulas
Admiral Corporation

- A. *TV-I.F.-Amplifier with Improved Synchronous
Detection*
Franz Buergerhausen
AEG—Telefunken Semiconductor Division
- B. *One Knob Picture Control*
Gildo Cecchin
Motorola Consumer Products Division

MONDAY (Continued)

- C. *Horizontal Output Transistor Base Circuitry
Design*
R. J. Walker, R. Yu
Semiconductor Products Department
General Electric Co.
- D. *25V Inch 114 Degree Trinitron Color Picture
Tube and Associated New Developments*
Susumu Yoshida, Akio Ohkoshi,
Senri Miyaoka
Sony Corporation
- E. *The 20AX System and Picture Tube*
P. G. J. Barten
N. V. Philips' Gloeilampenfabrieken

6:00 P.M. — Cocktail Party
Admission by Registration Badge Only
Sponsored by:
RCA Solid State Div.
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Videocraft Mfg. Co.

TUESDAY — A.M. — JUNE 11, 1974

SESSION III SOUND SYSTEMS 9:30 A.M.

Session Chairman: Ben Borman
RCA Consumer Electronics
Division

- A. *The Power Mean Frequency Estimator: An-
other Approach to the FM Detector*
Jeffrey N. Denenberg
Bell Telephone Laboratories
- B. *A 2.5 Watt Monolithic TV Sound System with
Refined DC Volume Control*
Bill Cocke
Fairchild Semiconductor
- C. *Solid State Audio Control*
Gordon Whelpley
Motorola Semiconductor Products Division

TUESDAY (Continued)

- D. *A True Hi-Fi Monolithic Amp That Can De-
liver 15 Watts of Output Power*
B. Murari, C. Cini, V. Prestileo, A. Romano
SGS-ATES
- E. *The Reliability of New Plastic-Package Power
Transistors Designed for Consumer Applica-
tions*
W. P. Bennett, L. J. Gallace
RCA Solid State Division

Luncheon — 12:30 P.M.

Vladimir Zworykin Award Presentation—IEEE

TUESDAY — P.M. — JUNE 11, 1974

**SESSION IV
VIDEO DISC PLAYBACK SYSTEMS 2:00 P.M.**

Session Chairman: John Rennick
Zenith Radio Corporation

- A. *Signal Processing for a Video Disc System
(VLP)*
George C. Kenney
Philips Laboratories
A. H. Hoogendijk
N. V. Philips'
- B. *An Optical Video Disc Player for NTSC
Receivers*
Robert Adler
Zenith Radio Corporation
- C. *An Optical Video Player Using Flexible Discs*
Georges Broussaud, Erich Spitz,
Claude Tinet, Francois LeCarvenec
Thomson—CSF
- D. *The MCA Disco-Vision System*
Kent D. Broadbent
MCA Disco-Vision Inc.
- E. *The IOM Video Disc System*
Frank D. Neu, Gunter F. Musolf
i/o Metrics Corporation