

Scanfax

SCANFAX, INC. 55 E. WASHINGTON ST., ROOM 532, CHICAGO, ILL. 60602

CHICAGO SECTION · IEEE · INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

APRIL 1974

POSTMARK 4-4
RECEIVED 4-5 1576LA
POSTMASTER:
SECOND CLASS POSTAGE
paid at Chicago, Illinois.
RECEIVED 4-15

Noise In Perspective

At the April 16 meeting of the Chicago Section at Nielsen's Village, Dr.

Heinz M. Schlicke, Allen-Bradley Company, will put "Noise in Perspective." Dr. Schlicke will give a "Double Talk" on noise, — electrical and mental. He will cover two main topics: some controversies in the elimination of electromag-



netic noise; and irrelevant and interfering information (noise), which affects the mind and how to eliminate its effects.

Schlicke will start by discussing the EMC-tree developed for the IEEE/NSA Technology Forecasting and Assessment (TFA) Committee to provide an idea of the ubiquity of the EMC problem. In this discussion, Schlicke will try to clear up some widespread misconceptions and to highlight controversial issues on impulse noise, filter effectiveness, economic aspects, and side effects of EMI/EMC.

Discussion of these side effects leads quickly into the much broader aspects of noise: alpha waves, biofeedback, and meditation — which can be considered the elimination of internal and external mental noise.

Heinz M. Schlicke received his Master's and Doctor's degrees under Professor Barkhausen at the Institute of Technology in Dresden, Germany. Since 1950, he has been with the Allen-Bradley Company, where he is now chief scientist.

Dr. Schlicke is a Fellow of IEEE and AAAS. He was president of the Group on Electromagnetic Compatibility twice.

His specialities in EMC include: filtering for EMC; industrial EMC; and side effects and hazards of EMC.

Dinner and meeting will be at Nielsen's Village, 7330 W. North Avenue, Elmwood Park. Social hour, 5:30 p.m.; dinner, 6:30 p.m.; meeting, 7:30 p.m. Dinner is buffet style; cost, \$6.00. Make reservations by calling the IEEE office, 263-5954.

Midwest Acoustics Conference - see page 4

CALENDAR OF EVENTS

- | | |
|------------|--|
| Apr. 2-3 | "FCC & CISPR EMI/EMC Specifications;" seminar given by Institute for Electromagnetic Compatibility; Holiday Inn, O'Hare (Page 3) |
| Apr. 3 | "PCM and Future Telephone Networks;" Fox Valley Subsection; Tally Ho Restaurant, West Chicago, Ill. |
| Apr. 10 | "Coordination of Protective Devices;" IAS/IECI; Nielsen's Village, 7330 W. North Ave., Elmwood Park, Ill. |
| Apr. 11 | "Improving Product Reliability;" Reliability Group; Nielsen's Restaurant, 6475 N. Mannheim Road, Rosemont, Ill. (Page 2) |
| Apr. 16 | "Noise in Perspective;" IEEE Section Meeting; Nielsen's Village, 7330 W. North Ave., Elmwood Park, Ill. (Page 1) |
| Apr. 16 | "Ceramic Image Waveguides;" A&P/MT&T; Menard's Black Steer Restaurant, 6446 W. North Ave., Chicago, Ill. (Page 3) |
| Apr. 17 | "Wednesday Night at the Movies;" Group on Electromagnetic Compatibility; Menard's Black Steer Restaurant, 6446 W. North Ave., Chicago, Ill. (Page 2) |
| Apr. 27 | Recognition Dinner; Arlington Park Towers (Page 3) |
| May 5 | Fox Valley Ladies Night; dinner and stage play |
| May 18 | Midwest Acoustics Conference — "The Future of Tape and Disc;" Norris Center, Northwestern University, Evanston, Ill. (Page 4) |
| June 11-12 | Chicago Spring Conference; Marriott Motor Hotel |

Deadline for copy: First week of month preceding publication

IEEE OFFICE: 263-5954

Recognition Dinner Sponsors

The IEEE Recognition Dinner each year is made possible through the generosity of the industry sponsors, because the cost of a ticket (\$12.50 per person this year) does not cover the cost of the evening. As a gesture of support for the Chicago engineering community, industry sponsors make up the deficit. Without the industry sponsors, the Recognition Dinner would not be possible.

When you do business with an industry sponsor, thank him for his support. If your firm is an industry sponsor, thank the management. If your firm is not on this year's list yet, talk to management about contributing to this evening when Chicago IEEE recognizes its own.

Sponsors so far for the 1974 Recognition Dinner include:

Allen-Bradley Company

Bunker Ramo Corp.

Motorola, Inc.

Northern Indiana Public Service Co.

Stewart Warner

Vapor Corp.

Westinghouse Electric Company

Improving Product Reliability

At the April 11 meeting of the Group on Reliability, R. W. Peach, Sears, Roebuck, and Co., will talk on "Using Field Service Experience to Improve Product Reliability."

Peach is manager of quality assurance at Sears and has had extensive experience in the field of reliability and quality assurance. He will point out how field service data and experience can help you improve your product performance and reliability.

Meeting will be at Nielsen's Restaurant, 6475 N. Mannheim Road, Rosemont, Ill. Social hour, 6:00 p.m.; dinner, 7:00 p.m.; meeting, 8:00 p.m. Cost of dinner is \$6.50. Please make reservations by Friday April 5 by calling: Dr. John E. Condon, Abbott Laboratories, 688-2575; Ray Schirmer, 259-0740, ext. 367; or the IEEE office, 263-5954.

Nominating Committee Selects Slate

The Chicago Section IEEE Nominating Committee, consisting of Hank Setton, chairman; Robert Nunemaker, and George Mack, has selected a slate of officers and Executive committee members for the 1974-75 season. Any IEEE member who wishes to place someone's name in nomination may do so, by presenting the Nominating Committee with a petition bearing 10 members' signatures. Nominations, backed by such a petition, may be made from the floor of the May Section meeting prior to the election. The date and location of the May meeting will be listed in the May issue of Scanfax.

Candidates for Section Officers are: Chairman, James Ralston, Allen-Bradley Company; vice chairman, Daniel J. Veith, Argonne National Laboratory; treasurer, Paul E. Jahn, Commonwealth Edison Company; and secretary, Robert Waghorne, Teletype Corporation.

Candidates for the Executive Committee include: Don Owen, Motorola, Incorporated; Jim Beall, Teletype Corporation; Howie Wolfman, Teletype Corporation; Ed Osterberg, Illinois Bell Telephone Company; George Austin, Commonwealth Edison Company; Chuck Heermans, Keen Corporation; and Joseph Feitler, Programming Methods, Incorporated. In addition, the chairman of the Fox Valley Subsection and the Northwest Subsection are both members of the Executive Committee.

Election to take place in connection with the Chicago Section May meeting. For time and place, see May Scanfax.

Wednesday Night at the Movies

On April 17, the Group on Electromagnetic Compatibility will have a movie night. Movies will include "EMC Program Considerations," "Operating EMC," "Technical Aspects of EMI," "EMI Control Methods," "Built-in EMC," and "Receiver Susceptibility."

Movies will be shown at Menard's Black Steer Restaurant, 6446 W. North Avenue, Chicago. Social hour, 6:00 p.m.; dinner, 6:30 p.m.; showtime, 7:30 p.m. Make your reservations by calling Colin Wilmot at 539-7171 or the IEEE office, 263-5954.

Scanfax Board of Directors
George J. Mack, President
Illinois Bell Telephone Company
Ruth L. Oldfield, Secretary
and Executive Editor
R. L. Oldfield & Associates
Ed Osterberg, Treasurer
Illinois Bell Telephone Company
Don Haines
Advertising Manager
(312) 832-4611
Scanfax Office
Room 532
55 E. Washington Street
Chicago, IL 60602
(312) 263-5954

Chicago Section Officers
Richard A. Bulley, Chairman
Commonwealth Edison Company
James F. Ralston, Vice Chairman
Allen-Bradley Company
Joseph Feitler, Secretary
Programming Methods, Inc.

Daniel J. Veith, Treasurer
Argonne National Laboratory

SCANFAX, April 1974 — Volume 26, Number 8. SCANFAX is published monthly, except July and August by SCANFAX, INC., Chicago, Illinois, for the information of the members of the Chicago Section, Institute of Electrical and Electronics Engineers. SCANFAX, INC., is a not-for-profit organization with editorial office at 1200 E. Madison Park, Chicago, Ill. 60615, and business office at 55 E. Washington Street, Chicago, Illinois 60602; telephone number (312) 263-5954. Subscription rate for IEEE members collected in dues, \$1.50; for others, \$3.00 per year. Second-class postage paid at Chicago, Illinois.

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 SPEC-TRUM. 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.

Recognition Dinner, April 27

The 1974 IEEE Recognition Dinner will be held at the Arlington Park Towers. It provides an evening of dining, dancing, entertainment and a tribute to Chicago area engineers.

The Recognition Dinner this year will honor four new Chicago area Fellows.

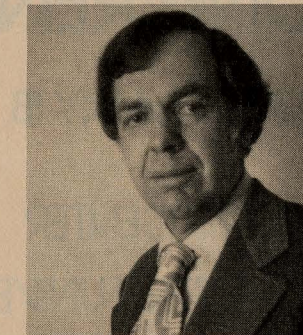
Robert W. Beckwith, Beckwith Electric Co.: "For contributions in application of electronic technology to the development of frequency shift keying techniques for data transmission and remote circuit breaker tripping."

Jack E. Bridges, (no photo available) IIT Research Institute: "For development of techniques and standards to control radio frequency interference, and for contributions to receiver design to suppress common-channel interference and noise."

James H. Nicholas, G & W Electric Specialty Company: "For contributions to the continuing development, testing, and manufacture of devices for high-voltage power cable."

Norman W. Parker, Motorola, Inc.: "For contributions in the design of color television receivers."

Join your fellow Chicago section IEEE members in honoring these new fellows. If



ROBERT BECKWITH



NORMAN PARKER

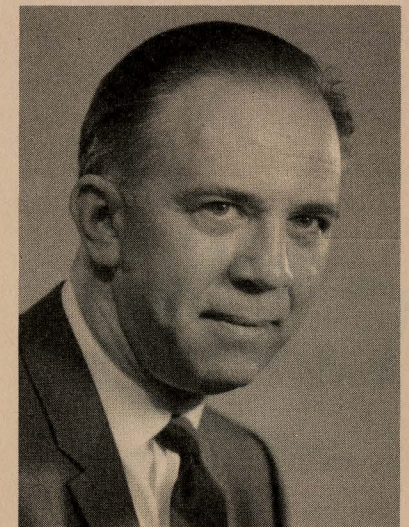
Ceramic Image Waveguides

Robert M. Knox, IIT Research Institute, will discuss "Millimeter Image Line Integrated Circuits" at the April 16 meeting of the Antennas and Propagation/Microwave Theory and Techniques joint chapter.

Ceramic image waveguides provide a new approach to integrated circuits for frequencies from 10 to 200 GHz. The ceramic waveguide provides very low attenuation and adequate wave guiding although it is an open structure. Primary advantages offered by these waveguides are cost reduction, reliability improvement, and size reduction compared to rectangular metal waveguides. Knox will describe various passive and active devices, as well as a K-band system which uses image line integrated circuits. The latter is an avionics bus system which employs the image line in the transmitters and receivers of the bus terminals.

Robert M. Knox received his BEE from the University of Minnesota in 1957 and his MEE from the University of Southern California in 1961. He was with

you have not gotten your tickets yet, be sure to send for them now. Send a check, payable to Chicago Section IEEE for \$12.50 per person to: J. Reynolds, Room 5118, Motorola Inc., 9401 W. Grand Ave., Franklin Park, Ill. 60131. Or use your American Express, Master Charge, Diners Club, or Bank Americard.



JAMES NICHOLAS

Seminar on EMI/EMC Specifications

The Institute for Electromagnetic Compatibility will present a two-day seminar, April 2 and 3, on "FCC and CISPR EMI/EMC Specifications." If your company designs, manufactures, and/or sells electronic, electrical, and/or electromechanical products in the United States or overseas, you need this course. Seminar sessions will be held on Tuesday and Wednesday, April 2 and 3, from 9:00 a.m. to 5:00 p.m. Location is Holiday Inn, O'Hare Airport, Chicago, Ill. Instructor is Donald R. J. White, past national Chairman of the IEEE Group on EMC.

The seminar covers FCC Rules and Regulations, Parts 15 and 18 and CISPR EMC Specifications. It is a comprehensive training course, covering the organizations; terms and definitions; and how to get a test item type approved, type accepted, or certified. It also reviews test items, logistics involved, test instruments and facilities, and test methods and procedures. The impact of Public Law 90-379 will be assessed.

Course material distributed to attendees includes Code of Federal Regulations, Title 47 on Telecommunications, which covers FCC Rules and Regulations, Parts 0 through 19; Volume 1, Electrical Noise and EMI Specifications; and a loose-leaf collection of special notes. Course fee, including registration, reference materials, luncheons, and coffee/cokes is \$250 per registrant. For three or more registrants from one organization, fee is \$200 each. For additional information, call Mrs. Moeller (301) 948-0028.

MIDWEST ACOUSTICS CONFERENCE

SATURDAY MAY 18, 1974

NORRIS CENTER
NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS

THE FUTURE OF TAPE AND DISC

MORNING SESSION

Introduction

Howard R. Schechter, MAC Program Chairman

The Amplitude and Spectral Characteristics of Music from the Standpoint of the Concert Listener

Ernest Schonthal, Measurement Applications Engineer,
Briel & Kjaer Instruments

The Critical Parameters of a Music Program Record-Playback Media and One's Sensitivity to Deviations from the Ideal

Marvin Camras, Senior Scientific Advisor,
IIT Research Institute

The State of the Art in Tape and Disc: What are We Putting on Tape and Records Today?

Session Chairman: E. M. Webb, Webb Recording Company

A. The Disc Media

John Bitner, Mastering Engineer, Wakefield Manufacturing

B. The Tape Media

Douglas Thornton, Vice President, Manitou Systems, Inc.

AFTERNOON SESSION

What Can and Should We Do About Where We Are Going?

Disc Panel Moderator: Daniel Queen, President,

Daniel Queen Associates

Panelists: John Bitner, Wakefield Manufacturing
Bernie Jakobs, Chief Development Engineer,
Shur Brothers, Inc.

Elmer Stetter, Technical Sales Manager,
Dolby Labs, London

Joe Wells, Manager,
Electronic and Recording Development, RCA Records

Dave Blackmer, President,
dbx, Inc.

Jay McKnight, Consultant,
Scully-Metrotec Division, Dictaphone, Inc.

Tape Panel Moderator: Hal Kaitchuck, President,
Boulevard Recording Studios

Panelists: Douglas Thornton, Manitou Systems
Elmer Stetter, Dolby Labs
Jay McKnight, Scully-Metrotec
Dave Blackmer, dbx, Inc.
Al Moris, Professional Audio Product Technical Service Supervisor,
3M Company
Marvin Camras, IITRI