



The IEEE

New

5178264 M
ALAN H STOLPEN
2037 BALMORAL AVE
UNION

E17
FEB. 17
NJ 07083

Published monthly September thru May by
the North Jersey Section of the Institute of
Electrical & Electronics Engineers, Inc. Office
of Publications: 399 Howard Boulevard, Mount
Arlington, N.J. 07856

Volume 20 March 1974 Number 7

NEWSLETTER STAFF

Editor John A. Zieger
Managing Editor M. M. Perugini
Student Activities Editor Les Kovach
Associate Editor Al Schreiber
Associate Editor Thomas Morton

Newsletter Deadline

Deadline for receipt of material is the 20th
of the second month preceding month of
publication. All communications concern-
ing the Newsletter including editorial
matter, advertising, and mailing, should
be addressed to: The NEWSLETTER,
c/o Girard Associates, Inc., P. O. Box 111,
Mt. Arlington, N. J. 07856, Phone: 398-5524.

Subscription: \$0.75 per year through dues
for members; \$1.50 per year for non-
members.

Second Class Postage Paid
at Mount Arlington, N. J.

REPORT ALL ADDRESS CHANGES TO:
Institute of Electrical and Electronics
Engineers, Inc., 345 East 47th Street
New York, N. Y. 10017

It is not necessary to inform the North
Jersey Section when you change your
mailing address. The NEWSLETTER and
other section mailings use a list provided
by IEEE's national headquarters in New
York. This means the Section has no need
to maintain a mailing list or addressing
plates. Section membership records are
changed when Headquarters notifies us.

SECTION OFFICERS 1973-1974

Chairman..... Harlan J. Perlis
Vice Chairman..... John Gerth
Treasurer..... Max J. Schindler
Secretary..... Kenneth Grace, Jr.
Member-at-Large..... James C. Gass
Member-at-Large..... Dr. Robert McMillan
Jr. Past Chairman..... Carl C. Torell

Reduced Rate Tickets For INTERCON 74

The 1974 IEEE International Conven-
tion will be held at the Statler Hilton
Hotel and the New York Colosseum in
New York City from March 26 to March
29, 1974. A limited number of tickets for
this important event have been made
available to Newsletter readers at the
special reduced rate of \$1.00 each (at the
Convention, the registration fee will be
\$5.00 for IEEE members and \$6.00 for
non-IEEE members). These reduced fee
registrations can be obtained by writing to
Dr. H. J. Perlis, Newark College of
Engineering, 323 High Street, Newark,
N.J. 07102. Please include your name,
company affiliation, address, a check for
the number of tickets desired and a
stamped, self-addressed envelope.

Engineer's & Social Values

For the second consecutive year, the
IEEE Committee on Social Implications of
Technology (C-SIT) will hold two Open
Forums on Monday, March 25 at INTER-
CON '74 IEEE members may offer
prepared viewpoints on any topic covered
by the titles: "Engineers and Social
Values" (a.m.) and "Energy and Social
Values" (p.m.) Several invitations to
contribute have already been accepted.
Substantial time will be allotted to open
discussion. Anyone wishing to speak
should contact Joseph S. Kaufman, 8
Prospect Place, Matawan, NJ 07747;
office phone: 201/ 949-5241 and send a
200-word abstract. No other written text
will be required.

P&I Annual Meeting

The 2nd Annual Dinner Meeting of
the North Jersey Chapter of the Power
Engineering Society honoring past chair-
men will be held Thursday March 14th.
At the meeting, Engineering Aspects of
Modern Motion Picture Production will
be discussed by Dr. Mauro Zambuto of
NCE. Title of Dr. Zambuto's talk is "A
Cast of Thousands in Glorious Color-But
the Stadium is Made of Paper."

Time:

Thursday, March 14, 1974, Cocktail
Hour (Dutch Treat) 6:00 P.M., Dinner
7:00 P.M.

Place:

Rock Spring Inn, West Orange, N.J.

Reservations:

To be made by March 10 to K.J. Oexle,
Jersey Central Power and Light Co.,
Madison Ave., Morristown N.J. 07960

Price:

Dinner & Gratuities \$5.50

Eta Kappa Nu Award

The 38th Annual Eta Kappa Nu
Outstanding Young Electrical Engineer
Award Dinner will be held in conjunction
with INTERCON in the Gold Ballroom of
the Statler Hilton Hotel on Monday,
March 25, 1974 (Cocktails at 5:30 and
Dinner at 6:30 PM). This year's award
recipient is John T. LaMacchia of Bell
Labs, Indianapolis with Honorable Men-
tion Awards being presented to Gerald K.
Beckmann and Douglas C. Bossen of IBM
and Leonard J. Forsys of Bell Labs,
Holmdel. Tickets are \$12 with students
at half-price. For tickets please contact
Mr. Edward V. Cardelli, American Elect-
ric Power Service Corporation, 2 Broad-
way, New York, N.Y. 10004.

GEMB Meeting Notice

Time:

Wednesday, March 13, 1974-Time: 7:30 PM

Place:

Rockefeller University, South Laboratory, Room 204
66th Street and York Avenue, New York City

Subject:

OLFACTORY PHYSIOLOGY APPROACHED BY MINICOMPUTER

Speaker:

Dr. Robert J. O'Connell,
Assistant Professor,
Rockefeller University

Pre-meeting Dinner:

Tower Cafeteria, Rockefeller University
64th Street and York Avenue, NYC,
6:00

Multitrack Recording

The Magnetics Chapter of the Princeton Section will hold a meeting at 8 P.M. on March 13, 1974. The discussion topic of the meeting is "High Density Multitrack Recording" with Mr. J.S. Griffin, speaker, from RCA Government Communications Systems, Camden, N.J.

Time: Wednesday, March 13, 1974, 8:00 P.M.

Place: Engineering Building, Room B112, Rutgers University, Univ. Hgts. Campus, Piscataway, NJ.

Pre-Meeting Dinner: 6:00 P.M., Alumni-Faculty Club, 199 College Ave., New Brunswick, NJ. For reservations call Mrs. Connie Zylman, Dept. of Elec. Eng., Rutgers Univ., (201) 932-2577.

Cable Television

The New York, North Jersey, and Long Island Joint Chapter of the Instrumentation and Measurements will hold its Annual General Meeting on May 8, 1974, 7:30 PM at the Group Public Utilities Service Corp., Interpace Building 260 Cherry Hill Road, Parsippany, New Jersey 07054. The subject of the technical portion of the meeting will be the Technical Aspects of Cable TV.

Mr. Robert V. C. Dickinson, Consulting Engineer will present the discussion

centering on the general areas of (1) background material on CATV systems and the current and projected requirement for two way transmission, (2) the methods for and problems involved in two way transmission, (3) a summary of current two way plans and their operation, (4) some thoughts upon the future.

Mr. Dickinson has been a consultant in the field of Cable Television and Broadcasting for the past three years and is presently the President of ECom Corporation, a cable TV and Broadcasting development and manufacturing group. Mr. Dickinson holds an ME degree from Stevens Institute of Technology, was a Navy Pilot, and has worked in the communications field for the past 25 years.

For further information on the meeting call: in New York City, Mr. R. Grossberg (212) 460-4020 or in New Jersey, Mr. D. Roerty (201) 465-2295

Further details will appear in the April issue.

Tour Of Edison Lab

The New York, North Jersey, and Long Island Joint Chapter of the Instrumentation and Measurements Group will sponsor a visit to Thomas A. Edison's West Orange Laboratory on Saturday, April 27, at 9:30 A.M.. The laboratory in which Edison worked for the last 44 years of his life is now designated a national historic site.

Out of West Orange came the motion picture camera, vastly improved phonographs, both silent and sound movies, the nickel iron battery and hundreds of other inventions. Edison's record of 1,093 patents has still to be surpassed.

For further information contact:
Mr. John J. Dietz (201) 736-1000 x 442

REGISTRATION-TOUR OF THE EDISON LABORATORY

Mail to:
Mr. John J. Dietz
Edison Electronics Division
McGraw Edison Company
Two Babcock Place
West Orange, N.J., 07051

NAME (Print _____)

FIRM _____

BUS. ADDRESS _____

BUS. PHONE _____

Met Opera & Tour

The officials of the Metropolitan Opera House have again graciously consented to be the host of members of the IEEE and their wives at a backstage tour of their facilities.

The tours have been arranged for Saturday mornings, March 30 and April 6, 1974 at 10:30 a.m.

In conjunction with the tour, a *very limited* block of tickets has again been reserved for our group for the matinee performances of Madame Butterfly on March 30 and L'Elisir D'Amore on April 6. *Pairs* (only) of tickets are \$33.00 and check or money order made out to P&I Division, New York Section, IEEE must be received by March 22. Because of the short supply of tickets, requests must necessarily be limited to one pair.

Requests for reservations for the tour and/ or the Opera performance will be handled on a first come - first served basis. And, please, **NO PHONE CALLS**. *Only* those requests accompanied by a **STAMPED, SELF-ADDRESSED ENVELOPE** can be honored or acknowledged.

Please fill in completely the form below:

Miss Evelyn Zarro
80 Park Place
Room 7339 (M35)
Newark, N.J. 07101

For backstage tour of the Metropolitan Opera House, please send to:

(Name) _____
(Address) _____
(Zip) _____
(Telephone) _____

Tour - 2 tickets for

☐ March 30 only, ☐ March 30 or April 6,
☐ April 6 only

Opera

Enclosed is my check or money order for \$33.00 made out to P&I Division, New York Section, IEEE for two tickets for the Saturday matinee opera performance on
☐ March 30 only, ☐ March 30 or April 6,
☐ April 6 only

Priorities for requests for all tickets will be assigned in order of receipt of request, regardless of date selected. *No requests* can be honored or acknowledged without a **STAMPED SELF-ADDRESSED ENVELOPE**.

Lithography for MOS

The March 14th meeting of the IEEE Electron Device Group, New York Metropolitan Chapter, will hear R.F.W. Pease of Bell Telephone Laboratories, Murray Hill, N.J. discuss "Electron Lithography for MOS Circuits."

About the Talk

With electron lithography it is possible to make structures with dimensions smaller than can be made photolithographically. MOS circuits made with finer dimensions have a number of advantages. One is the obvious advantage of more circuits per wafer; another advantage is the improved speed and power delay product of circuits made with finer dimensions. There are also pitfalls such as punch-through underneath short gates and increased power dissipation density. We will discuss these advantages and pitfalls and will also describe some MOS circuits, such as simple inverter circuits and a 1024-bit RAM made in different sizes to demonstrate the advantages of the smaller dimensions.

About the Speaker

Mr. Pease received his B.A., M.A., and Ph.D. from Cambridge University. In 1964 he joined the faculty at the University of California at Berkeley and worked on Scanning electron microscopy. In 1967 he went to Bell Laboratories to work on digital encoding of television and Picture-phone signals. Since 1971 he has worked on making integrated circuits using electron lithography.

Time: 8:00 P.M., Thursday March 14, 1974

Place: ITT Labs, Nutley, N.J.

Pre-Meeting Dinner: Copperhood Restaurant, south of Rt. 3 at Park Avenue Exit, Nutley, N.J.

Technology Assessment

The IEEE Technology Assessment Group, the North Jersey Chapter of A.I.Ch.E. and N.C.E. are sponsoring a one-day Seminar on Technology Assessment at Newark College of Engineering on Wednesday, April 24, 1974.

Prompted by the government's increasing attention to the second and third impacts of technological development, the

conference will deal with technology assessment as a necessary consideration of physical, economic and political growth and will review the present role of TA in our society.

Viewed most commonly as a policy-making process, technology assessments eventually could be the controlling factor in any development with local, statewide, or national implications, according to most experts.

The U.S. Government, through its Office of Technology Assessment, is directing more concern toward the consequences of research and development funded through government agencies.

It is only a matter of time, many experts feel, before assessments become a requirement in all sectors of business and industry.

Leaders in the relatively new field are among the speakers at the April conference at Newark College of Engineering.

Dr. Joseph Coates of the National Science Foundation, for example, will discuss the federal government's view on TA.

Walter Hahn of Congressional Research Service of the Library of Congress will address himself to, "Technology Assessment--Key to Tomorrow's Decisions."

A case study in which assessment techniques were applied will be presented by Richard C. Davis, manager of technical forecasting and assessment for the Whirlpool Corporation.

Dr. Sanford Bordman will moderate the conference. He is Director of the Center for Technology Assessment at Newark College of Engineering. Please contact him for details on registration, fees, parking or public transportation, 323 High St., Newark, N.J. 07102

MTT Bids for National Meet

The North Jersey Section MTT Chapter is presently submitting a joint bid for the 1976 National GMTT Symposium in conjunction with the Jersey Coast Long Island/ NY, & Philadelphia chapters. The combined membership thus represented totals over 750 members.

So those wishing to participate in the National Symposium can do so by contacting Mr. Bernard DiMarinis at (201) 284-2074 (ITT, Nutley).

Section Nominations

"The nominating committee has selected the following as nominees for 1974-1975 Section Officers:

Chairman:

Max J. Schindler, RCA

Vice Chairman:

Dr. Robert McMillan, NCE

Treasurer:

James F. Kampschoer, BTL

Secretary:

Frank B. Gialanella, ASCO

Member-at-Large (1)

Norman A. Bleselman, PSE&G.

Charles A. Coulomb, JCP&L.

Member-at-Large (2)

Jack M. Rausch, BTL

Alan H. Stolpen, Singer-Kearfott

*Additional persons can be nominated in addition to those recommended by the nominating committee by the following procedure:

1.

Obtain in writing a statement from the nominee declaring that if elected to that office, he or she will serve: I will accept the nomination for (name of office) of the North Jersey Section IEEE for the 1974-1975 year and if elected will serve in this capacity.

Signature and Membership Number

2.

Obtain signatures and membership no. of 25 current North Jersey Section IEEE members nominating the candidate, ie: Nomination for (name of candidate) for the office of (name of office) of the North Jersey Section IEEE for the 1974-1975 year.

Signature and Membership Number

3.

Deliver the acceptance statement and signatures before March 20th to Carl C. Torell, c/o Federal Pacific Electric Company, 150 Avenue L, Newark, New Jersey 07101

4.

Nominees and nominators must be of member grade or higher. It is expected that mail ballots will be in the May Newsletter.

Mohammed, The Mountain, and IEEE Intercon



Moving mountains has never been a really cost-effective concept, even in ancient times. In the absence of an unlikely miracle, Mohammed had to go to the mountain instead of vice versa.

There's a whole mountain of exciting new electronics hardware and software ready for introduction this Spring. With energy in short supply, however, the innovators just can't bring the mountain to you this season.

Instead, nearly 300 companies and a couple of hundred first-rate

engineering authors are building their mountain in a central location — the island of Manhattan — where all of you can see it and hear it all at once.

The name of the event is IEEE Intercon/74, and it's a "getting down to business" high-technology show and conference.

It's got an outstanding 40-session program that tells you how to put the newest technology to work. Plus special workshops and short-courses.

It's got a mountain of brand-new components, devices, instrument systems, and EDP equipment ready for your on-line evaluation.

With severe restraints on sales travel, it just makes good sense to bring everything that's new and significant into one accessible place for thousands of professional engineers — by public transportation.

As a matter of fact, it's clearly in line with national policy to do so. And it is an excellent way to "energize" the surging electronics economy that's coming in the months ahead.



This is going to be an outstanding show and program. Maybe the best Intercon in several years. It's in your own best interest to "come to the mountain" and take home a wealth of practical new ideas to your organization.

Plan now to get your full share at Intercon in New York.



ieee intercon

March 26-29, New York Coliseum / Statler Hilton Hotel

The International Convention and Exposition of the Institute of Electrical and Electronics Engineers Inc.