

Newsletter

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Volume 23 December 1976 No. 5

Published monthly except June and July by the North Jergey Section of the Institute of Electrical & Electronics Engineers, Inc. Office of Publications: 399 Howard Boulevard, Mount Arlington, N. J. 07856.

NEWLETTER STAFF

Editor							. Ray Vaccari
Managing Editor.							B. Blair
Business Manager							M. M. Perugini
Staff:							Joe Winston
							John Zeiss
							George Fen
Publications Chair	rm	na	n				Ine Winston

Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial matter should be addressed to: Ray Vaccari, Editor, 236 Summit Road, Mountainside, N. J. 07092. All communications concerning business matters, including advertising, should be addressed to: The Newsletter, c/o Girard Associates, Inc., 399 Howard Boulevard, Mt. Arlington, N. J. 07856.

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

REPORT ALL ADDRESS CHANGES TO:
1EEE Service Center
445 Hoes Lane
Piscataway, N. J. 08854
(201) 981-0060

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

Chairman							. Frank Gialanella
Vice Chairma	n.		ŀ				Donald G. Bathke
Treasurer							Ken Oexle
Secretary				è			. Alan H. Stolpen
Member-At-La	arg	e			ý,		Alex Brown
Member-At-La	arg	e					Alex McPhee
Member-At-La	arg	e					Jerry Uhrig
Jr. Past Chairs	ma	n				R	obert E. McMillan

Activities Reminder: Clip To Calendar

Dec 1 - Advances In Ultrasound Imaging

Dec. 1 - Voice Identification

Dec. 7 - Fuel Cells

Dec.14 — Tri-Section Meeting

Jan. 5, 1977 - Effects Of Medical Device Amendments

Jan. 12, 1977 - EMI/EMC Seminar

Jan. 19, 1977 - Computer Society Meeting

Three N. J. Sections Meet

The North Jersey, New Jersey Coast and Princeton Sections will meet at the IEEE Service Center in Piscataway on Tuesday, December 14, 1976.

A buffet dinner will be available between 6 and 7:30 PM. This will be followed by a talk by Dr. Herbert A. Schulke, Jr., General Manager and Executive Director of IEEE. A facilities tour will show you how IEEE handles data processing, accounting, printing and mailing.

Beer and pretzels will be served from 8:30 to 10 PM and during that time you will be able to trade ideas with members of the IEEE Headquarters Staff and engineers from the other New Jersey Sections.

Tickets may be purchased at the door for \$5 each, but due to space limitations it will be necessary to make advance reservations.

For further information and to make reservations, contact Don Bathke,

Westinghouse Electric Corp., 1447 Chestnut Ave., Box 3000, Hillside, N. J. 07205;(201) 465-2316.

ELECTRO/77 - Lei Section

down in with the primary at

brown New York and I am take to

Gialanella Named Section Chairman

At the October meeting of the Executive Committee, Norman Bleshman tendered his resignation as Section Chairman.

"I have found it impossible to devote the time and effort to even meet the challanges and demands necessary to fulfill the position as Chairman. For this reason, I hereby tender my resignation effective immediately or as soon as the Executive Committee can designate a Chairman for the remainder of the Section year," he said.

The Executive Committee appointed Frank Gialanella to fill the vacant post for the remainder of the year.

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

North Jersey IEEE Meeting:

Computer Society Meets

Prof. T. Bashkow of Columbia University will present the results of his research into using large arrays of 8080 microprocessors to perform large scale computation.

The meeting will be held at 7:30 PM on January 19, 1977 at the ITT Conference Center, 500 Washington Ave., Nutley. Further details will be presented in the January Newsletter.

Time: 7:30 PM, Wednesday, January 19, 1977.

Place: ITT Conference Center, 500

Washington Ave., Nutley, N. J.

ELECTRO/77 - Tri Section Meeting Report

On November 10, 1976, the North Jersey, New York and Long Island sections held a meeting at the Cafe Coco in New York City. After a fine dinner and cocktails, Bob McMillan introduced the Section chairmen to the guests.

Representatives from ELECTRO/77 also participated in the affair. They were Frank Williams, Joe Anastopoulos and Frank Jink. The ELECTRO/77 directors stressed the need for volunteer members from the different sections to participate in the various ELECTRO/77 committees. For those who wish to participate, please contact Chairman Frank Gialanella, Jr., Past Chairman Bob McMillan or Vice Chairman Don Bathke.

The North Jersey Section was presented with a check in the amount of \$4,700 dollars from director Frank Williams for North Jersey's last year's support and participation of Boston's ELECTRO/76 show.

The ELECTRO/77 exhibit will be held at the New York Coliseum on April 19, 20 and 21 and the professional sessions will be held at the Americana Hotel on the same dates.

STATEMENT OF OWNERSHIP, MA		ILATION					
1. TITLE OF PUBLICATION (Required by 35) U.S.C. 3685)	2 DATE OF FILING					
The IEEE Newsletter		October 1,1976					
3. FREQUENCY OF ISSUE	A. NO. OF ISSUES PUBLIS	e styce othe					
Monthly except June & July 4. LOCATION OF KNOWN OFFICE OF PUBLICATION (Street, City, Co.	Ter unly, State and ZIP Code) (Not prin						
399 Howard Blud., Mt. Arlington,	N.J. 07856						
		ot printers)					
 399 Howard Blvd., Mt. Arlington, NAMES AND COMPLETE ADDRESSES OF PUI 		ING EDITOR					
PUBLISHER (Name and Address)	Claren, Epiton, AND WARAG	ING EDITOR					
North Jersey Section IEEE, 399 How	ard Blvd., Mt. Ar	rlington, N.J.07856					
Ray Vaccari, 236 Summit Rd., Mount	admedde N T 070	202					
MANAGING SDITOR (Name and Address)	ainside, N.J. U/C	192					
B. Blair, 399 Howard Blvd., Mt. Ar	lington, N.J. 078	356					
7. OWNER (If owned by a corporation, its name and address must be sinhidders awning or holding ! percent or more of total amount of stock. Journess must be silven. If owned by a Partnership or other unincorpor be silven.	If not owned by a corporation, the i	names and addresses of the individual					
NAME	ADI	DRESS					
North Jersey Section IEEE	399 Howard Blvd.,	Mt.Arlington,NJ. 07856					
8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURI							
TOTAL AMOUNT OF BON S, MORTGAGES OR	R OTHER SECURITIES (If there are none, so state)						
NONE	ADDRESS						
INCANCE							
X PRECEDING 12 MONTHS PRECEDING 12 MONTH		ACTUAL NO. COPIES OF SINGLE					
10. EXTENT AND NATURE OF CIRCULATION	12 MONTHS	ISSUE PUBLISHED NEAREST TO					
A. TOTAL NO. COPIES PRINTED (Net Press Run)	5070	5000					
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES	0	0					
2. MAIL SUBSCRIPTIONS	4819	4744					
C. TOTAL PAID CIRCULATION (Sum of 1081 and 1082)	4819	4744					
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES	49	37					
E. TOTAL DISTRIBUTION (Sum of C and D)	4868	4781					
P. COPIES NOT OISTRIBUTED 1. OFFICE USE, LEFF OVER, UNACCOUNTED, SPOILED AFTER PRINTING	202	219					
F, COPIES NOT DISTRIBUTED I. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED	202	0					
P. COPIES NOT DISTRIBUTED 1. OFFICE USE, LETT OVER, UNACCOUNTED, SPOILED AFTER PRINTING							
P. COPIES NOT DISTRIBUTED 1. OFFICE USE, LETT OVER, UNACCOUNTED, SPOILED ATTER PRINTING 2. RETURNS FROM NEWS AGENTS G. TOTAL (Sum of E. F1 and 2—should equal net press run shown in A)	0	0 5000 PUBLISHER, BUSINESS					
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LETT OVER, UNACCOUNTED, SPOILED AFTER PRINTING 2. RETURNS FROM NEWS AGENTS G. TOTAL (Sum of E, F1 and 3-should equal net press run shown in A) 11. I certify that the statements made by me	0 5070 ATURE AND TITLE OF EDITOR, I	5000 PUBLISHER, SUSINESS					
P. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING 2. RETURNS FROM NEWS AGENTS G. TOTAL (Sum of E, F1 and 2-should equal net press run shown in A) 11. I certify that the statements made by me above are correct and complete.	5070 STURE AND TITLE OF EDITOR, INC. OR OWNER THATES (Section 132,121, Postel and Inc. 132,121	5000 PUBLISHER, BUSINESS Service Manual) Ider former section 4359 of this title vice e written request for permission					

Fuel Cells

The Power Generation Group of the Power and Industrial Division (Power Engineering Society) is holding a meeting on Tuesday, December 7, 1976.

Dr. W. A. Messner, of Con Edison Co., will speak on the topic "Fuel Cells." Dr. Messner is the senior energy conversion research engineer at Con Edison, and is a leading expert in this new field.

This meeting will take place in the Stone & Webster Training Room on the 41st floor of 1 Penn. Plaza, New York City, at 5:45 PM. Refreshments will be served at 5:15 PM.

Time: 5:45 PM, Tuesday, December 7, 1976.

Place: Stone & Webster Training Room, 41st Floor, 1 Penn Plaza, N. Y. C. Refreshments: 5:15 PM.

EMI/EMC Seminar

On January 12, 1977, a seminar will be held at the Alumni Center of the New Jersey Institute of Technology on the magnitude of the EMI/EMC problem on military, commercial and industrial equipment and how to design equipment to minimize its effects. It will be sponsored by the New York, North Jersey, and Long Island Joint Chapter Instrumentation & Measurements.

The various regulations and standards pertaining to unwanted electromagnetics, such as the FCC Part 15 and proposed ANSI and the CBEMA Narrow Band Regulations, will be discussed by experts.

Methods and instrumentation for evaluating EMI/EMC will be discussed and demonstrated. Actual measurements of the civilian electromagnetic environment will be reviewed and the effects of these measurements on industrial, commercial and military equipment will be discussed in detail.

The fundamental process of noise coupling due to electromagnetic interference will be discussed and conditions which cause this type of interference will be analyzed.

The Seminar will not only cover the fundamental underlying causes of electromagnetic interference, but will stress the need for electromagnetic capability considerations early in the design of equipment. Speakers will include H. W. Ott, J. F. Ladig of Bell Telephone Laboratories; A. Grinoch of U. S. Army Picatinny

Arsenal, and William Lamdin of Electro-Metrics.

For an application form or more information, contact: Bill Reenstra, Bell Telephone Laboratories, Whippany, N. J., at (201) 386-2339, or Daniel Waxler, U. S. Army Picatinny Arsenal, Dover, N. J., at (201) 328-6841.

Time: 9 AM to 4 PM, Wednesday, January 12, 1977.

Place: NJIT Alumni Center, Newark, N. J.

LATE NOTICE: 1977 Officers Announced

Dr. Robert M. Saunders will be the President of IEEE for 1977.

He defeated Irwin Feerst and Robert A. Rivers in the second contested election held by the Institute. Dr. Saunders, professor of electrical engineering at the University of California at Irvine, will succeed Mr. Joseph K. Dillard of the Westinghouse Electric Corp. on January 1.

The new Executive Vice President will be Carleton A. Bayless who defeated Robert D. Briskman for this office.

Loering Johnson, chairman of the Tellers Committee of IEEE, announced that the new incoming president had received 21,425 votes; Mr. Feerst a total of 14,244 votes; and Mr. Rivers 13,145 votes.

Mr. Bayless, the new Executive Vice President, had a vote tally of 26,491, while Mr. Briskman received 21,389 votes. Mr. Bayless is division manager, Pacific Telephone & Telegraph Co., Sacramento, Calif.

Three Constitutional amendments which were voted on failed to receive the number of necessary positive votes for adoption and were thus rejected. They included propositions to require approval by the membership prior to dues or assessment increases; to change the procedure for amending the Constitution of the Institute; and a third proposition requiring membership approval before dues increases or changes.

The voting breakdown of the Constitutional amendments is a follows:

Proposition No. 1–29,275 or 59% in favor of it; 19,062 or 39% opposed; 1,033 or 2% blank or invalid.

Proposition No. 2–24,686 or 50% in favor of it; 22,970 or 47% opposed; 1,714 or 3% blank or invalid.

Proposition No. 3-24,496 or 50% in favor of it; 23,686 or 48% opposed; and 1,188 or 2% blank or invalid.

Total of 49,370 ballots were returned, or 36% of the voting membership. A

is required for affirmative action on a proposed Constitutional amendment.

Others elected to office included the following:

Howard B. Hamilton, professor of electrical engineering at the University of Pittsburgh, Director of Region 2, the Eastern Region; Burkhard H. Schneider, manager of planning and research, The Detroit, Mich. Edison Co., Director of Region 4, Central Region.

John W. Thatcher, retired manager of Deep Space Network Planning of the Jet Propulsion Laboratory in Pasadena, Director of Region 6, Western Region; E. Folke Bolinder, professor of the Chalmers University of Technology in Gothenburg, Sweden, Region 8.

Donald S. Brereton, of the General Electric Co., Schenectady, N.Y., Director of Division II; Richard W. Damon, Director of the Applied Physics Laboratory of Sperry Research Center in Sudbury, Mass., Director of Division IV; Richard J. Gowen, of the U.S. Air Force Academy's Department of Electrical Engineering in Colorado, Director of Division VI; and Charles A. Eldon, Regional Vice Chairman of Region 6, Western Region.



RESERVE MARCH 2, 1977

The North Jersey Section IEEE Banquet will be held Wednesday, March 2, 1977.

Help Wanted!

The various working committees for ELECTRO/77 are in the process of recruiting IEEE members from the Metropolitan area to help perform the numerous tasks needed to make this convention a success. ELECTRO is the product of the merger of the INTERCON and NEREM Conferences and is sponsored in part by METSAC. As one of the three METSAC Sections, the North Jersey Section shared in the profits of ELECTRO/76 (approximately \$5.000 toward the Section's operating budget). Now, we are asking the members of the North Jersey Section to volunteer for committee work for ELECTRO/77 (April 19-12, 1977) in New York City. We want to be able to do a job as well as or better than the terrific job done by our counterpart in Boston on ELECTRO/76.

My specific needs are for people to work on the ELECTRO/77 Facilities Committee. If you are interested in participating in this or any other committee of ELECTRO/77, please contact me at your earliest convenience. Dr. Harlan J. Perlis, Chairman, ELECTRO/77 — Facilities Committee, New Jersey Institute of Technology, 323 High St., Newark, N. J. 07102; (201) 645-5492/5472/5044 (office), (201) 833-1787 (home).

USAB Goal III

The IEEE North Jersey USAB Task Force gathered on October 28, 1976 at the Howard Room, Student Center of the NJIT. Those present at the meeting were: Dr. Robert Anderson, Mr. Donald Bathke, Mr. John Casazza, Mr. Jack Kinn (USAB representative), Mr. Frank Montmeat, Mr. Joseph O'Grady and Mr. Richard Tax. During this meeting, 12 sub-goals under Goal III of the U. S. Activities Board were ranked in the order of importance. These are:

- 1. Provide Technical Support at the State Level (6. hby/m)
- 2. Congressional Fellows for Support
- 3. Raise Professional Standards
- 4. Remove Industrial Exemptions
- 5. Improve Curricular Accreditation
- 6. Code of Ethics
- 7. Limit Engineering Enrollments to Those Qualified
- 8. Limit Accreditation of Engineering Schools
- 9. Improve Use of the P. E. Exam
- Define Legal Status of Employed Engineer
- Redefine Role of Engineering Technologist
- 12. Upgrade Qualifications for IEEE Membership

The persons who attended the meeting felt that careful checks should be made with other organizations to insure that the IEEE program does not involve unnecessary duplication. Also, the program can be called successful only if it is coordinated with the full participation of the other engineering societies.

Voice Identification

The Vehicular Technology Group of the IEEE is holding a meeting on Voice Identification on Wednesday, December 1, 1976. The meeting will be held at 2 PM in the 9th floor tape room, N. Y. Police Dept., I Police Plaza (City Hall Vicinity).

Speakers will be: Lawrence G. Kersta, initiator of Voice Prints Techniques, designer and manufacturer of the Sound Spectrograph, who was on the staff of Bell Labs for 39 years, and made the first validation experiments in voice printing; and Sergeant Gene McDonnell, head of the logging tape section, and chief technician on Voice Print analysis. Voice sounds are processed by an analyzer using the heterodyne principle with a fixed tuned frequency selective filter, and an

heterodyne oscillator. A tape is Scanned repeatedly at 12 times the normal recording speed of 7.5 ips. All frequencies from 50-8000Hz in a 2.5 second interval are analyzed, and amplitudes are permanently recorded on electrically sensitive facsimile paper. Four types of prints represent variations in frequency, time, and amplitude.

For further information call Hal Bloomberg at (212) 374-6772.

Time: 2 PM, Wednesday, December 1, 1976.

Place: 9th floor tape room, N. Y. Police Dept., I Police Plaza, N. Y. C.

Pre-Meeting Luncheon: Noon "Dutch Treat" lunch at Aldo's Restaurant, 10 Reade St., N. Y. C.

Ultrasound Imaging

The Metropolitan New York Chapter of the IEEE Group on Engineering in Medicine and Biology (GEMB) announces the following program for Wednesday, December 1, 1976: Advances in Ultrasound Imaging.

Ken Plesset, project engineer, Picker Corp., Ultrasound Division, Northford, Conn., will be the featured speaker.

For further information, call W. H. Buchsbaum, vice chairman, Metro GEMB, at (212) 240-5594 (Brookdale Hospital).

Time: 7:30 PM, Wednesday, December 1, 1976.

Place: Rockefeller University, South Lab., Room 204, 66th St. & York Ave., N. Y C.

Pre-Meeting Dinner: 6 PM, Tower Cafeteria, Rockefeller University, 64th St. and York Ave.

Advance Notice: January 5, 1977 meeting will cover "The Effects of FDA Medical Device Regulations on Hospitals," by Michael J. Miller, J.D., executive director of AAMI Arlington, Virginia.