The IEEE
Newsletter
The Magazine of the North Jersey Section

Field Trip, Saturday, November 16
Freehold Raceway

Volume 15, Number 3
November, 1968

CALENDAR

Thursday, November 14

Metropolitan Electron Devices — **Dynamic Scattering in Liquid Crystals,** ITT Laboratories, Nutley, N. J. 8:00 P.M.

Monday, November 18

North Jersey Automatic Control — **Phase-Lock Loop Techniques Applied to the "Speed Control" of Synchronous Motors,** General Precision Plant #3 Auditorium, 1150 McBride Avenue, Little Falls, N. J. 8:00 P.M.

Tuesday, November 19

North Jersey Microwave — **Special Problems in High Power Solid State Microwave Generators,** Arnold Auditorium, Bell Telephone Laboratories, Murray Hill, N. J. 8:15 P.M.

Wednesday, November 20

North Jersey Power — **Economics of Higher Voltage Distribution,** Public Service Electric and Gas Co., 80 Park Place, Newark, N. J. 7:30 P.M.

North Jersey Computer and Communication Technology — **Remote Data Acquisition,** Public Service Electric and Gas Co., 70 Park Place, Newark, N. J. 7:00 P.M.

New York P & I — **Reliability in the ECAR, NPCC and PJM Systems,** Union Carbide Auditorium, 270 Park Avenue, N. Y. C. 6:30 P.M.

Thursday, November 21

Metropolitan Engineering Management — **Growing Old Gracefully,** Room 125, United Engineering Center, 345 East 47th Street, N. Y. C. 7:30 P.M.

Princeton Magnetics — **Burroughs Planar Thin Film Memory,** Burroughs Corporation, Electronic Components Division, Mt. Bethel Road, Warren Township, N. J. 8:00 P.M.

Wednesday, December 4

L. I. Automatic Control — **Tutorial Lecture Series on Modern Control Theory Including: Sensitivity, Stability, Optimal and Adaptive Control,** Polytechnic Graduate Center, Route 110, Farmingdale, N. Y. 8:30 A.M. to 4:30 P.M.

Thursday, December 5

Metropolitan Instrumentation and Measurement — **Instrumentation and Its Uses in Air Pollution Control,** Consolidated Edison Co., 4 Irving Place, N. Y. C., Room 1425. 7:00 P.M.

New York P & I — **Lightning Performance on 4 KV and 13 KV Circuits,** Third Floor Meeting Room, Union Carbide Building, 270 Park Avenue, N. Y. C. 6:30 P.M.

The IEEE **Newsletter**

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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.

NORTH JERSEY SECTION OFFICERS 1968-1969

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Secretary ..... Robert G. Sokalski
Member-at-Large ..... Harry Clark
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Jr. Past Chairman ..... Bernard Meyer

Executive Committee Meeting
Verona Public Library,
NOVEMBER 6, 7:30 P.M.
DECEMBER 4, 7:30 P.M.

A Day At The Races

On Saturday, November 16, 1968, the North Jersey Section of the IEEE will conduct a field trip to Freehold Raceway, Freehold, New Jersey.

In 1967 the track outlayed $800,000 in improvements. The principal expansion was the construction of a new widened track which could easily accommodate 10-horse fields. The new track was constructed to the west of the former half-mile oval, thereby tripling the space for patrons on the promenade area fronting the homestretch. Also included in the expansion were many other patron conveniences including mutual divisions, immediate rerun of the race via tape of the film patrol, doubling of the Sulky Room accommodations and 1,500 additional seats. The success of this expansion, called "Expansion '67," has attained big league status for Freehold Raceway. The 1967 season of 90 days, longest in track history, proved a record-breaker in many respects—purses, time marks and mutual handle.

As a special group we are planning a trip including a deluxe buffet consisting of sirloin beef tips and buttered noodles, admission to the track, reserved seats and personalized tickets — all for $5 per person (including gratuities). Parking fees are not included in the $5 fee. It is suggested that those planning to attend should meet at the Patio Terrace inside the track at 10:00 a.m. A representative of the track will meet us and give us a brief explanation of the operation of the track and some interesting highlights about Harness Racing.

W. T. Kelly
c/o Public Service Electric & Gas Co.
Room 8343-M
80 Park Place
Newark, New Jersey 07101

Enclosed please find my check (or money order) made payable to the North Jersey Section, IEEE in the amount of ..... ($5.00 per person) for ..... tickets for the November 16th trip to Freehold Raceway.

Enclosed is a self-addressed, stamped envelope. I understand that reservations received after November 11, 1968 will be returned.

Name.....

Address.....
No. Street

.....
City State Zip Code

Telephone No. .....

Anyone over 16 years of age is welcome but only those 21 years of age or over can use the cocktail lounge and/or place bets. The form at the bottom should be used to make reservations at $5.00 per person. Please include a stamped, self-addressed envelope for returning your letters. In order to insure that all tickets will be mailed in time, all reservations received after November 11, 1968 will be returned.

High Voltage Distribution Economics

The North Jersey Power Group's November meeting will hear Mr. J. H. Easly of General Electric Systems Engineering Operation discuss the economics of higher voltage distribution. His presentation will cover economic studies that have been prepared for system distribution voltages of 15, 25, and 35 KV, with load densities from light to heavy, for both overhead and underground construction.

Time: Wednesday, November 20, 7:30 P.M.

Place: Public Service Electric and Gas Co., Room 1-M, 80 Park Place, Newark, N. J.

Remote Data Acquisition

The Computer and Communication Technology Groups will hold a joint meeting in which Mr. Thomas Zidow, Application Engineer, Westinghouse Electric Corporation, Hagan/Computer Systems Division, will be guest speaker. His discussion will review the use of the computer system as a central unit for Data Acquisition. The speed of the computer and its associated remote equipment will be studied to provide an optimum information system. Code forms will be discussed along with their effect on system security.

About the Speaker

Mr. Zidow earned his BS and MSEE degrees at the University of Pittsburgh where he is currently a candidate for a PH D degree. He has been on the staff of the Pitt EE Department and has been a consultant to Allegheny Ludlum Steel and the Pennsylvania Bell Telephone Company prior to joining Westinghouse in 1965 where he has been a consultant in their Learning Laboratory and Atomic Energy Department prior to joining the Hagan Computer Systems Department.

Time: Wednesday, November 20, 1968, 7:00 P.M.

Place: Public Service Gas and Electric Co., 70 Park Place, Newark, N. J.

Problems In Solid State Microwave Power Generators

Rapid strides are now being made in solid-state microwave power generation. With the recent introduction of negative-resistance avalanche junction diodes and gallium arsenide bulk-effect devices, a new impetus was given to research. An assessment of the present status of these devices and a look into the future will highlight the November meeting of Microwave Group.

About the Talk

Solid-state devices are already displacing vacuum tubes for low power system functions, including transmitters for line-of-sight communication links. What are the possibilities that they can also replace high power micro-wave tubes? Here we attempt to assess the probability of success and to foresee some of the directions which such research may take. We point out certain special problems to be solved and present new circuit concepts which appear promising at this time.

To obtain high average powers from the proven device types will require the cooperative use of hundreds or thousands of elementary devices. The major concern of this paper is to describe and analyze certain integrated circuit network approaches for multiple-element sources. Particular emphasis will be on amplifier rather than oscillator circuitry.

About the Speaker

Mr. M. E. Hines is a graduate of the California Institute of Technology. He received the B. S. degree in Applied Physics in 1940 and the M. S. in 1946. He served as a Weather Officer with the Air Force from 1940 to 1945. With the Bell Laboratories from 1946 to 1960, he worked in Research and Development of microwave tubes and storage tubes; parametric amplifiers; pulse transmission systems; and tunnel diode amplifiers and oscillators. At Microwave Associates, he has been active in the microwave signal sources of various types and high power microwave signal control devices using diode switch elements. At present, he is a Vice President and Technical Director, Microwave Products Group. He is a Fellow of the Institute of Electrical and Electronics Engineers.

Place: Arnold Auditorium.

Time: Tuesday, November 19, 8:15 P.M.

Dinner: 6:15 P.M., Wally's, Watchung, N. J.

Growing Old Gracefully

The Metropolitan Chapter of the Engineering Management Group is planning a talk on how engineers can avoid obsolescence, at a meeting to be held on November 21. The talk will cover the subject of obsolescence in education and in personal ability. The speaker will explain how the engineer can avoid obsolescence in himself and in the people under him and how to live with unavoidable obsolescence.

The speaker will be Mr. I. S. Blonder, Chairman of the Board of Blonder-Tongue Laboratories, President of Com-Cable TV Inc. and a director of Station WNJU-TV. He also has been a guest lecturer at MIT where his topic was "Philosophical Generalities of Management Guidance as Seen with One Eye Closed by the Fist of Experience."

Time: Thursday, November 21, 1968, 7:30 P.M.

Place: Room 125, United Engineering Center, 345 East 47th Street, New York City.

Pre-Meeting Dinner: 5:45 P.M. at Ferdi's Restaurant, First Avenue near 44th Street, New York City, telephone reservations by November 19 to Norman Mills, (212) 689-7200, ext. RJ221.

Synchronous Motor Speed Control

The viewpoint that a hysteresis synchronous motor works like a phase-locked loop in a communications application leads to a simple electrical equivalent circuit model for the motor. The model adequately describe's the motor's motion with respect to synchronism and, in particular, the well-known hunting phenomenon. The motor's hunting characteristic cannot be tolerated in systems which require very tight speed control. Therefore, it is necessary to employ an external phase-lock control system to eliminate this effect. A two-loop scheme is suggested which effectively dampens the motor's response to torque disturbance. A linear analysis of the motor embedded within the control system is given which establishes the over-all response as being virtually independent of the motor's hunting characteristic.

This talk will be presented by Dr. Gerald T. Volpe, Associate Professor of Electrical Engineering, The Cooper Union for the Advancement of Science and Art, New York, at the North Jersey Automatic Control Group meeting.

About the Speaker

Since receiving his bachelor's degree from CCNY in 1957, Professor Volpe has been engaged in electronic circuit and systems design for various industrial concerns. Three years of this time was spent as a faculty member and as a graduate student at New York University. In 1964 he received his doctorate, writing his dissertation on multiple-loop feedback systems.

From 1964 to 1966 Dr. Volpe was a project engineer at CBS Laboratories in Stamford, Connecticut, working in the areas of communications and control. In 1967 he was with a small consulting firm in Greenwich, Connecticut and later that year he joined the Perkin-Elmer Corporation as a systems design engineer. He recently was appointed to the Cooper Union Faculty as an associate professor in the Department of Electrical Engineering.

Time: Monday, November 18, 1968, 8 P.M.

Place: General Precision Plant #3 Auditorium, 1150 McBride Avenue, Little Falls, N. J.

Dinner: Burns Country Inn, 955 Valley Road, Clifton, N. J. 6:00 P.M.

(Congratulations Hal)

Dynamic Scattering in Liquid Crystals: A New Electronically Controlled Reflective Display Concept

A new electronically controlled reflective display concept based on a new effect in certain classes of nematic liquid crystals has recently been discovered. This new concept offers for the first time reflective operation, flat construction, and low power and voltage operation, which suggests the use of integrated circuits in the addressing function. The effect has been called *dynamic scattering,* because scattering centers are introduced in the liquid crystal by the disruptive effects of ions in transit through the ordered fluid. Since the active layer of liquid is only of the order of one mil thick and is held between two pieces of glass by capillary action, none of the conventional problems in handling liquids are experienced. Several crude prototypes of devices using the new effect have been fabricated. These include a numeric indicator, an all-electronic clock with no moving parts, and electronically controlled window.

A talk on this effect by Dr. George H. Heilmeier is planned for this month.

Dr. Heilmeier, who has his B.S.E.E. from the University of Pennsylvania and his M.S.E., M.A., and Ph.D. from Princeton University, has done work in solid state microwave devices, with emphasis on distributed parametric and tunnel diode structures. His present interests lie in the field of liquid crystals. He is the author of more than 20 publications and has 12 U.S. Patents issued or pending. Currently he heads the Solid State Device Research Group at RCA Laboratories, Princeton. A member of Tau Beta Pi, Sigma Xi, Eta Kappa Nu, and a senior member of the IEEE, he was the recipient of an "Outstanding Young Electrical Engineer" award in March, 1968, given by Eta Kappa Nu.

Time: Thursday, November 14, 8:00 P.M.

Place: ITT Laboratories, Nutley, N. J.

Dinner: 6:00 P.M., Copperhood Restaurant, South of Route 3, Park Ave. Exit, Nutley. Reservations not required.

New Jersey Section To Sponsor Conference on Measurements

A Measurements Conference sponsored by the North Jersey Section, I.E.E.E., has been scheduled for the Fall of 1969. Mr. J. G. O'Grady, Section Chairman, in making this announcement, also announced the appointment of Mr. Robert G. Sokalski of Franklin, New Jersey, as Conference Chairman. Mr. Sokalski is a senior engineer with Aircraft Radio Corporation, Boonton, New Jersey.

The conference title has been designated "New Horizons in Measurement" and will feature technical papers which will be presented on current trends in theory, techniques, and instrumentation used for electrical measurements. Tutorial sessions are also being planned during the evening of the first day of the conference. The conference will run for two consecutive days in early October 1969, and the technical sessions and tutorial sessions being planned cover the broadest spectrum of electrical measurements, standardization, and instrumentation.

Mr. Sokalski, in accepting the chairmanship of the conference, reported that there are indications of considerable interest in this conference expressed not only by the Section membership but by the industry of the area as well. This is due, he said, to the high percentage of the membership of the North Jersey Section actively working in the measurements field, and the number of companies located in North Jersey that are engaged in either the manufacture of electrical measurement apparatus or electrical measurements systems.

While not national in scope, the conference should have wide membership appeal and is being planned as an annual event of the North Jersey Section of I.E.E.E. The Steering Committee of the Conference of which Mr. Sokalski is the chairman is presently assembling the various committees of the conference, such as Technical, Program, Finance, Facilities, and Arrangements. Chairmen of these committees have not yet been appointed. Those interested in working on the conference should contact the Conference Chairman, Mr. Robert G. Sokalski, Aircraft Radio Corporation, Boonton, New Jersey 07005; telephone 334-1800, Extension 246.

Course on Protective Relays

The Education Committee of the North Jersey Section is planning a twelve session study course to assist electrical, consulting and industrial engineers as well as contractors, maintenance men, technicians, architects and others who are interested in protective relays and the associated systems.

The course will cover the basic principles of protective relays, their application, their selection and the basic concepts for setting relays for system conditions.

Professional relay engineers will present the lectures. A text will be supplied along with notes and technical papers and homework problems will be assigned to amplify the lecture material.

The course is scheduled to start on January 21, 1969 and end on April 8, 1969.

Clean Air

The December meeting of the Joint Chapter on Instrumentation and Measurement will be highlighted by talks on "Instrumentation and Its Uses in Air Pollution Control." Edward F. Ferrand, Director of the Bureau of Technical Services of the Department of Air Pollution, City of New York, will speak on the aerometric network planned by New York City. Emphasis will be on the instrumentation in use by the City and its principle of operation. He will also discuss the need for improved instrumentation in the Air Pollution field.

O. G. Hanson, Chief Field Engineer, Consolidated Edison Co., will discuss various methods available for determining high concentrations of SO_2. He will also present a review of difficulties encountered in practice.

Since there is limited seating capacity it is requested that those interested in attending this meeting notify Mr. E. H. Brown at Brogan Associates Inc., 80 Urban Avenue, Westbury, N. Y. (516) ED 3-6683.

Time: Thursday, December 5, 7:00 P.M.

Place: Consolidated Edison, Room 1425, 4 Irving Place, N. Y. C.

Reservations: Required. Call E. H. Brown (516) ED 3-6683.

LI Control Theory Seminar

On Wednesday, December 4, 1968, the Long Island Section of the IEEE professional group on Automatic Control and Systems Science and Cybernetics will sponsor an all day tutorial lecture series on Modern Control Theory. The main objective of this lecture series will be to introduce some of the problems and solutions which have come to be associated with Modern Control Theory. The lectures will be given by specialists from industry and the academic community, who are actively engaged in research in their particular areas of interest.

The lectures will be held at the Graduate Center of the Polytechnic Institute of Brooklyn, Route 110, Farmingdale, New York in the Auditorium. The lectures will be given in two sessions, a morning session from 9:00 to 12:30 P.M., and an afternoon session from 1:30 to 4:30 P.M.

Registration will be at the door between 8:30 and 9:00 A.M.; admission will be $3.00 for IEEE members, $2.00 for student members and $5.00 for nonmembers. Refreshments will be served during the session.

Lightning Performance on 4 KV & 13 KV Circuits

The New York Group on Transmission and Distribution will feature a discussion of lightning on high voltage circuits at its December 5, 1968 meeting. The practices and experiences of several power companies with performance on open wire and spacer cables operating at 4 KV and 13 KV will be discussed by representatives of these companies. A brief question and answer period will follow.

Time: Thursday, December 5, 1968, 6:30 P.M.

Place: Third Floor Meeting Room, Union Carbide Building, 270 Park Avenue, New York City.

Wm. R. Bennett to Receive Mervin J. Kelly Award

The IEEE Board of Directors has approved the recommendation of the Field Awards Committee to the Awards Board to award the 1968 Mervin J. Kelly Award to Dr. William R. Bennett with the following citation: "For contributions to telecommunication theory in the field of modulation, noise, and pulse transmission."

The presentation will be made during the Northeast Electronics Research and Engineering Meeting to be held November 6-8, 1968 in Boston.

Dr. Bennett began his professional career as a member of the technical staff in the research department of the Bell Telephone Laboratories in 1925. In his forty years of service there, he was principally engaged in basic investigations of multichannel communication systems and the related problems of noise and nonlinearity. He was among the first to recognize the feasibility and advantages of transmitting voice and other analog signals by digital representation.

In 1965 he chose early retirement from his position as head of the data theory department to accept an appointment as professor of electrical engineering at Columbia University. In addition to teaching courses in signal transmission and information theory, he directs the research of graduate students in the communication field.

Dr. Bennett is the author or co-author of four books and of more than thirty technical papers, and has been granted fifteen patents, including a basic one on the maximally flat filter. He is a Fellow of both the IEEE and the American Physical Society; a member of Tau Beta Pi, Eta Kappa Nu, Sigma Xi, and URSI (Union Radio Scientifique Internationale); a former editor of the IEEE Transactions on Circuit Theory; and was for many years a member of the IEEE Standards Committee. He was a Mackay Visiting Lecturer at the University of California at Berkeley in 1964.

He was graduated from Oregon State University in 1925 with the degree of B.S. in electrical engineering and was awarded the degrees of A.M. and Ph.D. in physics by Columbia University in 1928 and 1949, respectively.

Laser Lectures In N. Y.

The New York ComTech group will offer a six-lecture series on Lasers at the Little Theater in The New York Telephone Co. Bldg. at 140 West Street in Manhattan, starting November 6. The program to be offered is:

Nov. 6 — *Laser Theory and Applications — Introduction.* Speaker: W. V. Smith, IBM.
Nov. 13 — *Laser Theory and Application (cont'd).*
Nov. 20 — *Holography,* Dr. Mauro Zambuto, Newark College of Engineering
Dec. 4 — *Laser Theory and Application (cont'd).*
Dec. 11 — *Ultraviolet Techniques and Applications.*
Dec. 18 — *Infrared Techniques and Applications.*

Additional speakers for the lectures will be drawn from the following companies: Siemens America Corp., RCA, IBM, Bell Telephone Labs, and GT&E.

Additional information may be obtained from Mr. A. Karman of RCA, at 212-689-7000, Ext. RJ224.

Planar Film Memory Subject of Princeton Talk

Mr. Al Bates, Manager of Thin Film Engineering at Burroughs will discuss his company's Planar Thin Film Memory at the November 21 meeting of the Magnetics Group of the Princeton Chapter. The meeting will start at 8:00 P.M. at the Burroughs Corporation, Electronic Components Division, Mt. Bethel Road, Warren Township. (Take Warrenville Road turnoff 3 miles North from Rt. 22.)

The group will meet for dinner at 6 P.M. at the King George Inn, Mt. Bethel Road, N. J. For reservations, call Mrs. Linda Gajarsky at (201) 757-5000, Extension 452. For more information on the meeting, call Dr. Raba Shahbender, (609) 452-2700 or Mr. A. J. Kurtzig, (201) 582-3310.

Reliability in the ECAR, NPCC and PJM Systems

The Power and Industrial Division of the New York Section will sponsor a talk entitled "Further Augmentation of Reliability in the Planning and Operation of the ECAR, NPCC and PJM Systems" at its November 20, 1968 meeting.

The presentation will show how the formal coordination of planning and operation between electric utilities and power groups enhance the reliability of bulk power supplies in the Northeastern part of the United States. Discussions will cover the electrical coordination of the massive area extending through New England and parts of Canada, as far west as Indiana and to the south as far as Tennessee and West Virginia.

Speakers from three coordinating groups will present the steps taken within their organizations and with their neighbors to achieve this coordination. The speakers will be: Mr. Owen A. Lentz, Executive Manager of the East Central Area Reliability Coordination Agreement; Mr. Julius Bleiweiss, Administrative Manager of the Northeast Power Coordinating Council; Mr. Wilmer S. Kleinbach, Staff Assistant to the Chairman of the Mid-Atlantic Area Coordinating Agreement Executive Board and former Manager of the Pennsylvania - New Jersey - Maryland Interconnection.

Time: Wednesday, November 20, 1968, 6:30 P.M.

Place: Union Carbide Auditorium, 270 Park Avenue, N. Y. C.

NOTICE

North Jersey Group on Engineering Writing and Speech Members

For the past two years GEWS has been inactive; no meetings were held during 1967 and 1968. Anyone seriously interested in reactivating the chapter should contact Joe O'Grady (201) 621-6800, Ext. 702 before December, 1968. In the absence of any interest the section will recommend to IEEE headquarters that the group be disbanded.

Who Picks Award Winners

The North Jersey Section is distinguished each year by the large number of its members singled out for Institute awards. The number is consistently a larger percentage of the North Jersey membership than the average percentage for the Institute. This is not surprising when one considers the concentration of research and development in this area.

Who are the "they" that pick these award winners? Certainly not just the North Jersey Section Awards Committee. They can only suggest the few that come within the scope of their acquaintance. The bulk of the suggestions comes from individual members. There is always serious concern that a worthy individual is being overlooked. It is imperative that each of us recognize that our help is vitally needed in this selection.

Consider the wide scope of these awards:

1) Election to Fellow grade for the man who has distinguished himself in his profession. This is achieved by invitation only, but you may suggest someone who should be invited.

3) Prize Paper Awards. One is for students; one is for authors under 30 years of age; and another without age restrictions.

3) Two scholarships for graduate study.

4) Field Awards in eight distinct fields of science and technology for men who have achieved unusual achievements in their profession.

5) The Medal of Honor and four Major Annual Awards for achievement having general significance in the profession.

Does this bring to your mind someone that should be considered for an award? This is your Institute. Recommending candidates for awards is your right and your duty.

For advice or help, contact a member of the North Jersey Awards Committee:

A. R. D'heedene, Chairman
New Vernon, New Jersey 07976

H. A. French, Defense Communications Division, ITT
492 River Road, Nutley, N. J. 07110

C. H. Hoffman, Public Service Electric and Gas Co.
Newark, N. J.

H. Jenny, Radio Corporation of America
2001 S. 2nd St., Harrison, N. J. 07029

J. B. Johnson, Thomas A. Edison Industries
51 Lakeside Ave., West Orange, N. J.

L. J. Lunas, Westinghouse Electric Corp.
95 Orange St., Newark, N. J. 07101

R. L. Mattingly, Bell Telephone Laboratories
Whippany, N. J. 07981

J. Z. Miller, 72 Blackburn Place, Summit, N. J.

J. D. Tebo, Verona, New Jersey

Report From The:

Treasurer

Since the duties of the Section Treasurer are somewhat self-explanatory (receiving, dispensing and keeping a strict record of Section funds, as well as overseeing the Section budget), it may be beneficial to briefly review the sources of income available to the Section. The major sources of funds for the operation of the Section are IEEE Headquarters rebates, Newsletter advertising and proceeds from lecture series run by the Education Committee.

As you may know, a part of your annual membership dues is returned to the Section to help maintain the Section's operation. Each of us within the next month or so, will receive notice that our annual membership fee is due. If we fail to heed the first notice, a second and eventually a third notice is sent from Headquarters as a reminder. Since we recognize that there will be as many as three notices to remind us to pay our dues, it becomes an easy matter to place the notices aside with the thought in mind that we will pay it soon. We fail to recognize that if our dues are not paid by April, our membership is terminated. No rebate is returned to the Section for these members who are dropped for nonpayment of dues. Last year nearly 600 Section members were dropped from membership long enough to prevent membership rebates to be returned for your Section's operation.

Another source of funds for the Section is advertising in the Newsletter. As each of us are well aware, the size of the Newsletter has decreased during the last few years, mainly due to the reduction in advertising which we have experienced. This has been due in part, to the cutback in institutional advertising by the national manufacturers and partially due to the dissatisfaction of our advertisers with the format of the Newsletter. Your Executive Committee, working closely with the Publications Committee has started a definite campaign to improve the Newsletter for the benefit of the Section membership and also to help to improve advertising revenue. Any suggestions which you have to improve the Newsletter should be passed on to the Publications Committee or any member of the Executive Committee.

The major local source of income for the Section is the Education Committee. In recent years the Education Committee has done an outstanding job in sponsoring lecture series, which have contributed significantly to the technical enrichment of the membership, and at the same time to the financial well being of the Section. Your Executive Committee has been attempting to encourage the Education Committee to sponsor more technical sessions during the two academic terms. In order to accomplish this goal, it is necessary to have more active participation on the Education Committee by the membership. If you are interested in helping with the continuing education of your fellow Engineers, you should contact Bernie Geertsma at Jersey Central Power & Light Company in Morristown, who is Chairman of the Education Committee this year. You will help your fellow Engineers and at the same time provide a necessary aid to the Section.

As a final reminder, you will soon receive your annual dues reminder from Headquarters. Won't you please help your Section by making your dues remittance promptly.

H. E. Blaicher, *Treasurer*
North Jersey Section