



The IEEE



Newsletter

The Magazine of the North Jersey Section

NORTH JERSEY SECTION

**TOUR OF WESTERN ELECTRIC FACILITIES
KEARNY, NEW JERSEY**

TUESDAY, JANUARY 26; 7:30 P.M.

For Reservations: Call John Abraham at
(201) 622-7000, Ext. 3065 by January 20.

January, 1971

Section Tour of Western Electric

The North Jersey Section is sponsoring a tour of the Western Electric facilities in Kearny, New Jersey, on Tuesday, January 26, 1971. The tour, restricted to adult males only, will show the visitors the manufacturing of the various items made by Western Electric. Ample parking is available at the plant site.

In order that name tags can be prepared in advance, those planning on attending should fill out and mail the reservation coupon below, or call Mr. John Abraham at (201) 622-7000, ext. 3065, no later than January 20.

Time: Tuesday, January 26; 7:30 P.M.

Place: Western Electric, Central Avenue, Kearny, N. J.



Mr. John Abraham
c/o Public Service Electric
and Gas Co.
80 Park Place, Room 8335-M
Newark, New Jersey 07101

I plan to attend the Western Electric tour
on Tuesday, January 26, 1971.

Name

Address

.....Phone.....

Names of Guests

Tuesday, January 12

North Jersey Communications Technology Group—Meaning of Self-Organizing Systems, Dr. George Klir, Speaker, Western Union Technology Center, Mahwah, N. J. 8:00 P.M. Pre-Meeting Dinner at Holiday Inn, Route 17, Ramsey, N. J. 6:30 P.M.

Wednesday, January 13

Group on Engineering in Medicine and Biology—Electrocardiography, Dr. David B. Geselowitz, Speaker, Rockefeller University, South Lab Building, Room 204, York Avenue and 66th Street, N.Y.C. 8:00 P.M. Pre-Meeting Dinner at Abby Aldrich Hall, Rockefeller University. 6:00 P.M.

Thursday, January 14

New York Metropolitan Area Chapter of Electron Devices Group—Silicon Diode Array Camera Tubes, R. L. Rodgers, Speaker, General Telephone and Electronics, 208-20 Willets Point Boulevard, Bayside, L. I., N. Y. 8:00 P.M. Pre-Meeting Dinner at Kam Fong Restaurant, 19-11 Francis Lewis Boulevard, Whitestone, N. Y. 6:00 P.M.

Tuesday, January 19

Computer Group—The Use of APL to Simulate a Computer Central Processor, James R. Allen, Speaker, Bell Telephone Laboratories, Whippany, N. J. 8:00 P.M. Pre-Meeting Dinner at New York Tea Garden, 14 Washington Street, Morristown, N. J. 6:00 P.M.

Wednesday, January 20

Power and Industrial Division—Engineering—Professionalism and Unionism, Charles J. Wurmfeld, P.E., and Harold J. Ammond, Speakers, Consolidated Edison Co., 4 Irving Place, N.Y.C. (9th Fl. cafeteria). 6:30 P.M. Refreshments at 6:00 P.M.

Friday, January 22

NY Section New Technical and Scientific Activities Committee and the NY Section Group on Electron Devices of the IEEE—The Second Seminar on Electroluminescence and Semiconductor Lasers, Monmouth College, West Long Branch, N. J.

Tuesday, January 26

North Jersey Section—Tour of Western Electric Facilities, Western Electric, Central Avenue, Kearny, N. J. 7:30 P.M.

Wednesday, January 27

North Jersey Section Reliability Chapter—The Role of Engineering in Litigation, Isaac Stewart, P.E., Speaker, Wayne Manor Restaurant, Route 23, Wayne, N. J. 7:30 P.M. Pre-Meeting Dinner at Wayne Manor. 6:00 P.M.

Wednesday, February 10

Parts, Materials and Packaging Group-21 and the Power and Industrial Division—New Dimensions in Heat Transfer, Eugene Koczukur, Yale Eastman and Fred Quinn, Speakers, Consolidated Edison Co., 4 Irving Place, N.Y.C. (19th Fl. auditorium). 7:00 P.M.

Saturday, February 13

North Jersey Section Annual Dinner Dance, The Governor Morris Inn, 2 Whippany Road, Morristown, N. J. 6:00 P.M.

Thursday, February 25

New York, North Jersey and Long Island Joint Chapter-Instrumentation and Measurement—Tour of ERE Laboratory, West Orange, N. J. 2:00 P.M. Registration will be limited to the first 25 people who apply.

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Volume 17 January 1971 No. 5

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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 1970-1971



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Annual Section Dinner & Recognition of New Fellows

The North Jersey Section Annual Dinner Dance, honoring the newly-elected Fellows and recipients of field awards of the Institute who are members of the North Jersey Section, will be held on Saturday evening, February 13, 1971, at the Governor Morris Inn, Morristown, New Jersey.

Fellows award recipients are:

Eugene D. Becken, Vice President-System Operations, RCA Global Communications, Inc., for contributions to management of engineering and to the use of computers in international communications.

Andrew H. Bobeck, Member of the Technical Staff, Bell Telephone Laboratories, for contributions to fundamental magnetic memory and logic devices.

Willard S. Boyle, Executive Director, Bell Telephone Laboratories, Semiconductor Components Division, for scientific contributions, inventions and technical leadership in semiconductor electronics.

Thomas H. Crowley, Executive Director, Safeguard Design Division, Bell Telephone Laboratories, for contributions to computing techniques, switching theory, machine-aided design and the development of large software systems.

Clifford A. Warren, Executive Director, Bell Telephone Laboratories Defense Division, for contributions to the development of radar and large-scale guided missile systems.

A Dutch Treat Cocktail Hour will begin at 6:00 P.M. and will be followed by the

Awards Banquet at 7:00 P.M. Following the presentation of awards there will be dancing until 1:00 A.M.

Please note that it is Section policy to offer tickets at half price to retired Fellows and their wives.

Time: Saturday, February 13; 6:00 P.M.

Place: The Governor Morris Inn, 2 Whippany Road, Morristown, New Jersey.

For reservations: Write, enclosing a stamped, self-addressed envelope to: Mr. Robert G. Sokalski, Lozaw Road, Franklin, New Jersey 07416. (201) 827-6852.

Please forward tickets at \$8.00 each to: (Check payable to N.J. Section IEEE)

Name.....

Street.....

Town.....

State.....ZIP.....

I would like to share a table with the following:

.....

.....

.....

Self-Organizing Systems

Dr. George Klir will discuss the meaning of self-organizing systems at the January meeting of the North Jersey Communications Technology Group.

Dr. Klir will present a conceptual framework for a general systems theory. This will introduce the notion of deterministic and probabilistic, self-organizing systems. Their various properties will be discussed with illustrative examples.

The speaker is an Associate Professor at the School of Advanced Technology, State University of New York at Binghamton. Professor Klir has taught previously at Fairleigh Dickinson University, University of California at Los Angeles, and Bag-

dad University at Masul, Iraq. He received a Ph.D. in Computer Science from the Czechoslovak Academy of Science in Prague.

Dr. Klir authored six books, more than twenty papers, and holds several patents in the fields of switching and automata theory, logical design of digital computers, digital codes, cybernetics, and general systems theory. He is a senior member of the Institute of Electrical and Electronics Engineers.

Time: Tuesday, January 12; 8:00 P.M.

Place: Western Union Technology Center, Mahwah, N. J. (Look for Island Road exit off Route 17 in Mahwah; follow Western Union signs.)

Pre-Meeting Dinner: Holiday Inn, Route 17, Ramsey, N. J.; 6:30 P.M.

Electrocardiography

Dr. David B. Geselowitz will speak on "Electrocardiography" at the January 13 meeting of the Group on Engineering in Medicine and Biology.

Dr. Geselowitz is presenting a G-EMB Speaker Series Lecture sponsored by the G-EMB Educational Committee. He has received the B.S., M.S. and Ph.D. degrees all in electrical engineering from the University of Pennsylvania. He has been active in biomedical engineering specializing in electrocardiography and cardiac electrophysiology and certain aspects of artificial pacemakers. He is presently Associate Professor of Electrical Engineering at the Moore School and Associate Professor of Electrical Engineering in Medicine at the School of Medicine, University of Pennsylvania. He is Editor of the IEEE Transactions on Biomedical Engineering and a member of the editorial board of the Biophysical Journal.

Time: Wednesday, January 13; 8:00 P.M.
Place: Rockefeller University, South Lab Building, Room 204, York Avenue and 66th Street, N. Y. C.
Pre-Meeting Dinner: Abby Aldrich Hall, Rockefeller University; 6:00 P.M.

Silicon Diode Array Camera Tubes

Silicon diode array camera tubes will be the subject of the January 14 meeting of the Metropolitan Area Chapter of the Electron Devices Group. The speaker will be R. L. Rodgers of RCA, Lancaster, Pa.
About the Talk

The rapid development of silicon target technology has led to the development of two new types of camera tube. One is the optically excited Silicon Vidicon and the other is the Silicon Intensifier Target (SIT) Camera Tube, which extends the performance to lower light levels due to its impact ionization mechanism. The operation of these devices and their applications in systems will be discussed.

About the Speaker

R. L. Rodgers received his degree in Electrical Engineering from the Polytechnic Institute of Brooklyn. He has been engaged in work on electro-optic devices since joining RCA at the RCA Laboratories in Princeton. While at the laboratories he was involved with the research

and development of the Silicon Vidicon and Silicon Intensifier Target camera tubes. In 1969 he transferred to the Lancaster, Pa. Plant to continue work on these devices and their integration into various types of low light level TV cameras and sensors.

Time: Thursday, Jan. 14, 1971; 8:00 P.M.
Place: General Telephone and Electronics, 208-20 Willets Point Boulevard, Bayside, Long Island, N. Y.
Pre-Meeting Dinner: Kam Fong Restaurant, 19-11 Francis Lewis Boulevard, Whitestone, N. Y., 6:00 P.M.

Professionals Vs. Unions

At the general meeting of the Power and Industrial Division on January 20, 1970, Mr. Charles J. Wurmfeld, P.E. and Mr. Harold J. Ammond will present two important aspects of engineering today. The rewards of unionism are enticing, but must anything be sacrificed?

Mr. Charles Wurmfeld, P.E., is past president of the New York Chapter of the National Society of Professional Engineers. His portion of the talk will deal with the reconciliation of collective bargaining with professional conduct.

Mr. Harold J. Ammond, Executive Secretary of the Association of Scientists and Professional Engineering Personnel will discuss unionism among industrial employed engineers.

Time: Wednesday, January 20; 6:30 P.M. (6:00 P.M. for refreshments.)
Place: Consolidated Edison Co., 4 Irving Place, N.Y.C. (19th Fl. cafeteria.)

APL Simulates Computer

The simple syntax of APL and the ease in defining primitive operations on arrays make this language easy to learn and convenient for describing register-level operations of a computer for purposes of simulation. A presentation of this timely mode and a tutorial introduction to APL and a remote terminal demonstration will be given by Mr. James R. Allen of Bell Telephone Laboratories, Naperville, Illinois. Mr. Allen currently is working in their Advanced Technology Program. Three additional programs are planned covering such topics as: hardware and software consider-

ations in providing a telecommunications capability in computers, data communications, and the impact of microprogram control.

Time: Tuesday, January 19; 8:00 P.M.
Place: Bell Telephone Laboratories, Whippany, New Jersey.

Pre-Meeting Dinner: New York Tea Garden, 14 Washington St., Morristown, N. J. 6:00 P.M.

Information: For dinner reservations or any questions regarding the meeting, call Dr. Clarence A. Ellis, 201-538-5120. No reservations are necessary for the meeting, and non-members are also welcome.

Teaching Machines

The New York, North Jersey and Long Island Joint Chapter-Instrumentation and Measurement will sponsor an inspection tour of the facilities of ERE Laboratory in West Orange, New Jersey. ERE Laboratory is owned and operated jointly by the McGraw-Edison Co. and Prentice-Hall Inc. The Laboratory has developed and is now producing the Edison responsive environment machine or talking typewriter. This instrument is capable of providing tutorial attention and audio-visual response that is related to the progress being made by the child. A number of smaller systems of "desk top technology" including the "talking page" and the voice mirror will also be discussed.

Registration will be limited to the first 25 people who apply. Those interested should call Mr. John J. Dietz at (201) 736-1000, Ext. 571. Acknowledgements and directions will follow.

Time: Thursday, February 25; 2:00 P.M.
Place: ERE Laboratory, West Orange, N.J.

NY COMM-TECH LECTURE SERIES

There is still time to enroll for Com-Tech's Winter and Spring educational program on "Switching Systems and Their Applications." The winter series will cover in considerable detail electronic controls of telephone switching systems and the spring series will describe switching systems utilizing electronic techniques.

For registration and additional information write or phone Mr. Alexander F. Karman, RCA Frequency Bureau, 60 Broad Street, Room 730, New York, N.Y. 10004, (212) 586-3000, Ext. RR 3002.

You Tell Us Where You Want to Go

Winter Power Meeting

Authors have written over 275 manuscripts for the 1971 IEEE Winter Power Meeting, sponsored by the IEEE Power Group. These have been sent to the appropriate technical committee for reviewing, grading, and if accepted, included in the technical program. Present estimates indicate the technical committees will sponsor 57 technical sessions and panel discussions. The IEEE Electrical Insulation Group, as has been the practice for the past several years, will sponsor a technical session at the meeting.

The Power System Engineering Committee and the Power Engineering Education Committee will jointly present an all-day tutorial course, entitled "Probability Analysis of Power System Reliability." Notable experts in the field of reliability studies will be the course instructors. Pre-registration will be required and attendance limited, so if you wish to attend the course, it is recommended that you return the pre-registration form which will appear in the program announcement as soon as received.

The deadline for scheduling Committee Meetings has not yet arrived but if history is a criterion, over 100 committee meetings will be scheduled during the meeting week; 110 were scheduled at the 1970 Winter Power Meeting.

On Tuesday afternoon, the Administrative Committee of the Power Group will sponsor a panel session dealing with power systems and environment. The program for this session has not yet been finalized, but be assured it will be an outstanding feature at the meeting.

The North Jersey Section of the IEEE has arranged between 5 and 10 field trips each year for members and their families. These excursions have covered many diverse interests, but by no means all there is to see. Since choices must be made, let us know your preferences by filling out the following short questionnaire. Add to it any further comments you wish to make, and return it to Max J. Schindler, RCA Microwave Building 55, 1000 South Second Street, Harrison, N. J. 07029.

Enter your preference for field trips, ranked 1 to a maximum of 5, and check "Employment" column, if your own employment falls into one of the listed categories.

	Preference	Employment	Specific Suggestions
A. Installations			
Power			
Telephone			
Computer			
Transportation			
Others			
B. Manufacturing			
Electrical			
Electronic			
Transportation			
Others			
C. Laboratories			
Colleges			
Industrial			
Test & Evaluation			
D. Services			
Sports			
Entertainment			
Technical			
Others			

E. Other Fields: If you are willing to arrange a tour yourself, give specifics

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MODULAR OSCILLATORS

Engineering In Litigation

At the January meeting of the North Jersey Section Reliability Chapter, Mr. Isaac Stewart, P.E. of West Essex Engineering Co., Inc., will discuss the role of the engineer in cases involving litigation. All are welcome to attend. This will be a joint ASQC-IEEE meeting.

The talk will cover elements of the presentation of Expert Engineering testimony in court on the part of the plaintiff as well as giving testimony in the defense of your employer when he is being sued for product liability. Actual case histories, illustrated with slides, will be used to show the

development of the case from the observance of the equipment involved in the accident. Most of the case histories will be of a mechanical nature, however, the interdisciplinary engineering involvement will be stressed. A question and answer period will follow the talk.

Time: Wednesday, January 27; 7:30 P.M.

Place: Wayne Manor Restaurant, Route 23, Wayne, New Jersey.

Pre-Meeting Dinner: Dutch Treat Social and Dinner starting at 6:00 P.M. at the Wayne Manor.

For further information: Contact. G. L. Hetzel, (201) 386-2509 or E. L. Labagh, (201) 226-7777, ext. 262.

The Editor's Corner



With this January issue, we start a new editorial year and the staff of your *Newsletter* extends to all its readers and their families sincere wishes for a happy, healthful and prosperous New Year. We hope that 1971 will bring with it a marked improvement in the economic climate, especially with respect to employment opportunities for dislocated IEEE members.

As we look forward to 1971, the *Newsletter* staff would like to take this opportunity to express appreciation to all those who have contributed to making the *Newsletter* what it is today. We intend to not only maintain the professional calibre of this publication but, if possible, to improve the services offered by it.

The *Newsletter* is a communication media. With your help, we shall strive to make it even more informative, more interesting and more responsive to the needs of Section members. Serving as it does a rather broad spectrum of technological disciplines, the *Newsletter* will continue to try and periodically present important events and functions from the many diversified fields of member activities. To do this, we'd appreciate your assistance in telling us what your needs are, how we can be more responsive to these needs and what you'd like to see incorporated in fu-

ture issues, within the limitations of our existing eight pages.

We think that some sort of feedback loop would help and, depending upon the suggestions received from you, a reader's column may be added. Brickbats or bouquets, we promise to consider each suggestion and some selected letters of general interest may be published in a monthly compendium, consistent with space availability and publishing costs. Tell us what you want. Don't delay, write today!

A final request. Lately we've been in a bit of a bind time-wise with respect to late submission of material for the next issue and the degradation in mail delivery service has compounded the problem. The result is that issues have been late going to press and, subsequently, late in being mailed to recipients. We feel that it isn't fair to the various groups and committees, who work hard arranging meetings and tours, to have the notice of these functions arrive sometimes only a few days before the scheduled event, oftentimes too late for interested parties to plan on attending. To obviate this problem, we strongly urge contributors to mail material as early as possible. Please, don't wait for the publishing deadline, which traditionally has been receipt of material by the 25th of the second month preceding month of publication, to mail material. We respectfully request a mailing deadline of the 20th, except in unusual cases, to allow for the apparent recent slowdown in mail deliveries. (One letter took five days for delivery from No. Bergen to Mt. Arlington this past month.)

To continue as a meaningful publication, the *Newsletter* requires your help. Your cooperation is sincerely appreciated.

Raymond Dusault, Editor

Heat Transfer

Parts, Materials and Packaging Group-21, and the Power and Industrial Division will co-sponsor an evening meeting on "New Dimensions in Heat Transfer," a topic of timely importance.

The present trend in the electronic industry toward miniaturization and the increased use of integrated circuits has created a necessity for dissipating greater amounts of power from increasingly smaller electronic packages. There are two obvious solutions to this problem, namely: (1) to design lower power circuits, and (2) to provide better means of thermal dissipation. Some recent work on the latter approach which involves both materials and physical design will be covered.

Speakers will be: *Mr. Eugene Koczur*, Bell Telephone Laboratories, Whippany, N. J., "Multiple Heat Sources on a Single Sink;" *Mr. Yale Eastman*, RCA, Lancaster, Penna., "The Heat Pipe as a Practical Device;" and *Mr. Fred Quinn*, Zytron Industries, Hackensack, N. J., "A New Class of Thermally Conducting Electrical Insulators."

There will be no charge for the meeting; anyone interested is invited to attend. For further details, contact Mr. Howard Feibus at (212) 460-6461.

Time: Wednesday, February 10; 7:00 P.M.

Place: Consolidated Edison Company, 4 Irving Place, N.Y.C., 19th Fl. Auditorium.

Reliability Symposium

The Symposium, to be held at the Sheraton Park Hotel in Washington, D.C., on January 12, 13 and 14, promises to be an excellent exchange of technical information in the field of Reliability. The theme, "Reliability Meeting the Demand," will place emphasis on how reliability technology is responding to the demands of progress. Technical sessions have been structured to provide exchange in the areas of Specifications, Assurance Techniques, Mechanical Reliability, Designs and Analysis, Management, Transportation, Marine Products, Prediction, Cost, Case Histories, Space Simulation, and Statistical Techniques.

For further information, contact Carl M. Bird, IBM Corporation, Dept. 942, 8600 N. Astronaut Blvd., Cape Canaveral, Fla. 32920.

Dr. John B. Johnson

Dr. Johnson, a Fellow of the IEEE and a recent recipient of the David Sarnoff Award for 1970, died on November 27, 1970.

His entire career, from 1917 to his first retirement in 1952, was devoted to the study of fundamental problems in the application of electronics to telephony, radio and television. Among his many contributions in these fields was the study of "noise" in electrical circuits. Dr. Johnson showed that "thermal noise" not only existed in circuits but set an ultimate limit to amplification. This is often referred to as "Johnson noise."

During World War II, he did research on thermionics and developed a new, special type of oscillograph tube, in addition to basic work on a method of measuring the secondary electron emission from insulators which has been frequently used since then.

After receiving his Ph.D. from Yale in 1917, Dr. Johnson joined the Western Electric Engineering Department in New York City which, in 1925, became Bell Telephone Laboratories. Upon his retirement in 1952, he joined the Thomas A. Edison Central Research Laboratory, where he made important contributions in the field of ultraviolet, including the U-V Detector Tube.

In addition to the IEEE, Dr. Johnson was a Fellow of the American Physical Society and of the American Association for the Advancement of Science. In addition to publishing more than 20 important papers in electronics, he was granted 30 patents, predominantly in the communications field.

In 1969, after more than a half-century in electronics, Dr. Johnson finally retired completely in his 83rd year.

Electroluminescence

The New York Section New Technical and Scientific Activities Committee and the New York Section Group on Electron Devices of the IEEE are jointly sponsoring the one-day seminar, "The Second Seminar on Electroluminescence and Semiconductor Lasers," at Monmouth College, West Long Branch, N. J. on January 22.

Papers to be presented are:

"Electroluminescence in Monolithic GaP," *Dr. M. Kuhn*, Bell Telephone Labs.

"Advances in Monolithic $Ga_xAl_{1-x}As$," *Dr. J. Woodall*, IBM Research Center.

"Use of IR Excited Phosphors with GaAs Arrays," *Dr. S. V. Galginitis*, GE

Research Center.

"Semibarrier Heterojunction EL and Large Area Applications with II-VI Materials," *Dr. A. G. Fischer*, RCA.

"Electroluminescence in II-VI MIS Structures," *Dr. M. Russ*, Motorola Semiconductors.

"Electroluminescence in ZnS Films," *Mr. E. Soxman*, Sigmatron.

Advance registration is \$15.00 for IEEE members, \$20.00 for non-members, and \$7.00 for students. At the door, registration is an additional \$5.00. Make checks payable to NTSAC, and send to U.S. Army Electronics Command, Attn: AMSEL-KL-S (Dr. R. C. Hofer), Fort Monmouth, New Jersey 07703.

Benefits of IEEE Membership

It is a well-recognized fact that any organization is no better than the collective efforts of its individual members to work for the achievement of a common goal. The tangible benefits which accrue to members is in direct relation to the degree of participation and contribution by each individual towards accomplishment of mutually beneficial objectives.

As a professional organization, the IEEE is no exception to this maxim. Being a member in name only—a passive type of membership—deprives an engineer of some of the important advantages of belonging to our eminent Institute. IEEE members need professional contacts on an elbow to elbow basis. This is why we, of the North Jersey Section, attach so much importance to the professional development of each other by attendance at meetings and tours, by the mutual interchange of ideas which is facilitated by participation in group functions.

We put a premium on new ideas, innovation and improvement in methods, products, processes and projects. The valuable knowledge to be gained by active association with other members can be instrumental in furthering your own work activities and job progress. In short, IEEE is what you make it.

We all know that business competition has increased. The number of engineering layoffs shows this all too well. Members of IEEE are developing a growing interest in strategies of competition, including such new mathematical methods as game theory, operations research, simulation, etc., plus the accumulated know-how of practiced project performers.

Today's IEEE members are not alone in that they face the same conflicts, as other professionals, between their own personal obligations to themselves, their families and their community plus the obligation to provide a high level of technical leadership for the well-being of their jobs in industry. IEEE members confine their professional practices to the commonly-accepted ethical standards of the society in which they operate. These often-conflicting pressures have profound effects on IEEE members yet we all do our part to maintain the technological superiority of our American corporations and their products.

Recently, some of our Section members took time out from our busy personal schedules and spent an enjoyable evening touring Sea-Land Service, Inc., at Port Newark. This technical tour of their facilities was most rewarding in that we had the opportunity to observe an efficient operation where things were being done right! As engineers, concerned with efficiency, our spirits were raised to see a marvelously clean port facility with no trash, no rats, no confusion. All goods that normally spill onto docks were inside steel containers which permitted an entire ship to be unloaded in six hours. IEEE Computer and Systems people enjoyed this application of precision and efficiency and the Power people were delighted to observe the big lifting devices in action. This tour was perfect for almost any group and we felt that more members should have availed themselves of this opportunity.

Participation in Section tours like the above is only one facet of the advantages of IEEE membership. Come out and enjoy your local Section activities. Plan now to attend future meetings. **Get involved.** Remember, busy people get more done.

Maitland McLarin, Chairman, Membership Committee, North Jersey Section, IEEE

Computer Group Report

The most important function of the North Jersey Chapter of the Computer Group is to demonstrate a vitality in the selection of speakers and topics that will meet the interest and needs of its members. An open invitation to offer suggestions in this selection is again extended to all Computer Group members.

The programs planned thus far this year will include the following topics:

- (1) APL, "A Programming Language," which has been found useful in computer simulation and design automation (a tutorial).
- (2) Hardware and software considerations in providing a telecommunications capability in computers.
- (3) Data communications.
- (4) The impact of microprogram control.

The seminar-type presentations at Computer Group meetings provide a unique opportunity for those in computer design, programming, applications, and related engineering fields to keep abreast of developments in this fast-evolving technology.

The contributions of the members of the Computer Group Executive Committee, Dr. Clarence A. Ellis, Seymour Salowe, Daniel Russ, and Maitland McLarin, are herewith gratefully acknowledged.

Richard R. Shively, Chairman

STUDENT AFFAIRS

Chapter of the Month: Newark College of Engineering Evening Branch

The involvement of the Branch officers in their school and community affairs as well as in industry, typifies the goal of the Newark College of Engineering in the development of well rounded engineers whose life is not based solely on their profession.

Branch Officers

John Brady, a senior, is Branch Chairman. John is avidly interested in the field of power. He is associated with Public Ser-

vice Engineering Division in Newark. He is married, has two children (boy and girl) and enjoys bridge as a hobby.

Ruben Esquivel, a senior, is Branch Vice-Chairman. He is employed at Multi-amp Corp. of Cranford. He is married, has one boy and enjoys bridge as a hobby.

Thomas Gibson, a senior, is Branch Treasurer. He is associated with RFL Industries in Parsippany and has an outside interest in water sports and travel.

James Daley, a junior, is Branch Corresponding Secretary. He is with Automatic Switch in Florham Park. He is married, is the father of a boy and uses woodworking as relaxation.

Tom Steinert, a senior, is Branch Recording Secretary. He is associated with Automatic Switch in Florham Park. He is married, has two boys and his hobby is hifi.

Michael Kolba, a junior, is Delegate to the MSC. His responsibility is one of coordinating the activities of the North Jersey and New York/Long Island Student Branches.

James Lehman, a junior, is also a Delegate to the MSC. He is employed by Litton Automatic Business Systems. He is married and has one girl.

Arturo Martinez, a junior, is Branch Chairman of the Program Committee handling Student Nights and Feedback meetings. He is married, has two children and enjoys outdoor sports.

Feedback Committee

The Newark College of Engineering Student Branch of the IEEE, in conjunction with the heads of the E. E. Department, and with the cooperation of students in the department, has established a "Feedback" committee. Its aim is to provide the student with an active role in E. E. policy and to solve student problems through prompt and direct communication with the heads of the department.

The "Feedback" committee chairman is Mr. John Brady and faculty representatives are the Chairman and Vice-Chairman of the department, Dr. Frederick A. Russell and Professor Robert E. Anderson. Each E.E. student section is represented. Representatives and alternates for each section volunteer when notified, through the IEEE at the beginning of each semester. Meetings are announced at the beginning of the semester and take place every



John Brady



Thomas Gibson

three or four weeks. When feasible, free coffee is provided through the courtesy of the E.E. department.

The committee has existed for several years and has proved to be most successful. Success lies in results and the spirit of student-faculty relations has brought results. The student has found that he does have a voice in his Department. Among many other things, "Feedback" has been directly responsible for the foundation of a "general computing center departmental library" to provide students with programs of use in his own field of specialization, the opening of laboratories for student use between semesters, the lengthening of time between the issuance of elective choice forms and their final submittal, the clarification of departmental policy on specific course work, the clarification of the acceptability of various Senior projects, and the foundation of a smaller Course Evaluation Committee, which will report more frequently to the Department. Success also lies in interest and the growing amount of students contributing to the "Feedback" meetings has provided a good sounding board for gripes present in the electrical engineering student body.

Recently other departments have shown an interest in "Feedback" based on the success of the E.E. Department. Basically, feedback is provided by student incentive and by departmental cooperation. Hopefully, other IEEE student branches and other professional societies can benefit through feedback in the active participation in matters of mutual concern to students and faculty.

Professor Dickey discussed with both the Day and Evening Branch the EE-86 project concept, whereby a state-of-the-art design from conception through demonstrated product is required as a course requirement under close faculty advisor tutelage.