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The IEEE

# Newsletter

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## Newsletter Deadline

Deadline for receipt of material is the 20th of the second month preceding month of publication. All communications concerning 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.

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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 1972-1973

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## Software Reliability

The North Jersey Multigroup, the Reliability Group, and the Computer Society will hold a joint meeting on the reliability of large software systems. Dr. Walter H. MacWilliams, Jr., will present a talk discussing some differences between hardware and software reliability. He will also discuss means of enhancing reliability during the development phase and some problems encountered in quantifying software reliability.

Dr. MacWilliams is head of the Data Processing System Control Department of Bell Laboratories, Madison, New Jersey. His current responsibilities include studies to improve software quality and fundamental studies of software reliability.

*Time:* Monday, April 23, 8:00 P.M.

*Place:* Singer-Kearfott Division Research Center Conference Room, 1225 McBride Avenue, Little Falls, N.J.

*Pre-Meeting Dinner:* Anthony's Restaurant (6:00 P.M.), Rte. 46, Totowa, N.J.

## High Frequency Solid State Power Sources

Dr. H. Sobol, Head Communication Technology Research RCA Labs will present material on the "Progress in High Frequency Solid State Power Sources" at the forthcoming meeting of the N.J. Microwave Theory and Techniques / Antenna and Propagation Group. Advances in silicon Trapatt diodes for radar applications, gallium arsenide FET power

amplifiers, and high efficiency millimeter wave silicon Impatt diodes will be discussed. Recent results on the gallium arsenide travelling-wave transistor will also be presented. A brief review of the operating principles of the devices will be given.

*Time:* Wednesday, April 25, 8:00 P.M.

*Place:* ITT Avionics, 500 Washington Ave., Nutley, N.J. (Auditorium)

*Pre-Meeting Dinner:* Copperhood Restaurant, Lyndhurst, N.J., 6:30 P.M.

## Charge Coupled Devices And Applications

The April meeting of the Metropolitan New York Joint Chapter on Circuits and Systems will feature a talk on Charge Coupled Devices and their applications. The speaker will be Dr. R. J. Strain of Bell Telephone Laboratories, Murray Hill, New Jersey.

Charge Coupled Devices are just beginning to have an impact on the architecture of future systems. CCD's are natural shift registers, handling analog signals with the same facility as digital signals. This capability has been demonstrated in imaging applications, and in analog signal processing applications such as delay, filtering, and time compression. In addition, all of the traditional functions of a dynamic digital shift register can be economically realized with a CCD.

*Time:* Wednesday, April 11, 1973, 8:00 P.M.

*Place:* ITT Auditorium, 500 Washington Ave., Nutley, N.J.

## Gas Distribution Control Center Tour

The New York, North Jersey and Long Island Joint Chapter on Instrumentation and Measurement will sponsor a tour of the Gas Distribution Control Center, Public Service Electric and Gas Company at 84 Sip Avenue, Jersey City, New Jersey to be held on Tuesday, May 15, 1973 at 6:30 P.M.

The PSE&G Gas Distribution Control Center is the focal control facility for PSE&G's gas transmission network and contains the latest in control and monitoring instrumentation and techniques.

There will be no charge for this tour, but the group size will be limited to 20 persons. The tour is open to IEEE members and non-members alike. To reserve a place, or for further information please contact Mr. Thomas Guidera by telephone during business hours (201) 649-2923.

## Energy Use Control

The New York, North Jersey and Long Island Joint Chapter on Instrumentation and Measurements will hold its Annual General Meeting on the evening of May 8, 1973.

The highlight of the evening will be a presentation on the pros and cons of energy use control - a proposed system of non-essential load shedding on the customer's premises controlled by the utility and using methods already developed for remote meter reading.

I&M members will receive further detailed information by mail.

*Time:* Tuesday, May 8, 7:15 P.M.

*Place:* Con Edison, 4 Irving Place, New York, N.Y.

*Pre-Meeting Dinner:* Luchows, 110 E. 14th Street, N.Y.C., 5:30 P.M.

## MOS and IC Annual Symposium

The City University of New York and The Metropolitan New York Group on Electron Devices is holding an all day symposium on April 12, 1973. Speakers from BTL, CCNY, IBM, Inselek, RCA and Solid State Scientific will discuss MOS, SOS, MNOS and C-MOS Devices.

Registration: IEEE Members-\$25.00;

Non-Members-\$30.00; Full Time Students-\$5.00. Make checks payable to: C.C.N.Y. EE Dept. Conference and remit to: C.C.N.Y., EE Dept. (Dr. J. Nadan), 140th St. and Convent Avenue, New York, N.Y. 10031.

*Time:* Thursday, April 12, 9:00 A.M. to 4:00 P.M.

*Place:* C.C.N.Y. Graduate Center, 33 W. 42nd St. (Between 5th and 6th Aves.)

## Automatic Instrument Testing Seminar

The New York Joint Chapter on Instrumentation and Measurements is sponsoring an all-day seminar on Automatic Instrument Testing which will be held at Newark College of Engineering on April 24, 1973. The seminar, entitled "Semiautomatic and Automatic Testing of Electronic Instruments" will be a state-of-the-art look at automatic instrument testing emphasizing the economic factors and trade-offs in utilizing different degrees of automation. The seminar panel will consist of technical experts representing both test equipment manufacturers and users having various approaches to automatic testing. General purpose computerized systems as well as special purpose dedicated systems will be discussed with regard to function, flexibility, system and operating cost, required support and time savings compared to manual testing techniques. In-process testing, diagnostic trouble-shooting and final calibration as well as routing periodic calibration will be considered.

The morning session will be devoted to presentations by each panel member describing automatic testing from his particular viewpoint. The afternoon session will be a round-table discussion involving the panel members and seminar participants on the advantages and disadvantages of the various approaches to instrument testing.

*Registration Fee:* IEEE Members - \$10.00; Non-Members - \$15.00.

*For Further Information Call:* Mr. James W. Harte, Jr. (201) 243-4700 Ext. 555; Mr. John Dietz (201) 736-1000 Ext. 442; Mr. David C. Roberts (212) 442-4800 Ext. 8228.

*Time:* Tuesday, April 24, 9:00 A.M. to 4:00 P.M.

*Place:* Alumni Center, Newark College of Engineering, 323 High St., Newark, N.J.

## Barge Tour

The New York Section is sponsoring a tour (adults only) of the Con Edison gas turbine installation at the Gowanus Substation. The tour includes inspection of barge mounted gas turbines.

For directions and tickets, contact: William Coyne, c/o Consolidated Edison Co., 60 Bay Street, Staten Island, N.Y. 10301. All requests must be received by April 19 and must be accompanied by a self-addressed, stamped envelope.

*Time:* Thursday, April 26, 2:00 P.M.

## Con Edison Energy Control Center

The New York Section of the Power & Industrial Division will hold a General Meeting on April 25.

Mr. Joseph J. Coletta, a System Analyst with Con Edison's System Operations Department will discuss the functions and hardware associated with control of the Con Edison System. Topics will include duties of the System Operator, Load Forecasting and Management, Economic Dispatch and Computer Based Supervisory Control. Slides will be used during the presentation and a tour of the facility will conclude the meeting.

This meeting will include election of the Power & Industrial Division Executive Committee.

*Time:* Wednesday, April 25, 6:30 P.M. Refreshments Served - 6-6:30 P.M.

*Place:* Con Ed Energy Control Center, 128 West End Avenue (Near 65th Street), New York, N.Y.

## Numerical Control

The Numerical Control Society will hold its 10th Annual Conference at the Americana Hotel in New York City on April 16-18. In addition to the annual meeting, the conference will feature technical sessions, workshops, and panel sessions. For complete details, contact Numerical Control Society, 44 Nassau St., Princeton, N.J. 08540, (609) 924-4780.



## Engineering: The 2nd Oldest Profession

The North Jersey Control Systems Society, and the North Jersey Section will hold a panel discussion entitled, "Engineering: The Second Oldest Profession." The panel will be moderated by Sidney Shamis, Associate Dean, School of Engineering at NYU.

The theme will be set by Dr. Bernard Friedland presenting his views on the topic, and how the profession is being ill-served by its institutions: its professional societies, its schools, and the

licensing agencies that it supports. Completing the panel will be Mr. Hal Goldberg, who will present the position of the IEEE, and Mr. Paul Robbins, who will discuss the efforts of NSPE.

Dr. Bernard Friedland is currently Research Manager of the Keafott/Singer Research Center. Mr. Hal Goldberg is the Director of Region # 1 of the IEEE. Mr. Paul Robbins has been the Executive Director of NSPE since 1946.

Time: Wednesday, April 25, 8:00 P.M.  
Place: Public Service Electric and Gas Co., 150 Circle Ave., Clifton, N.J.

## IEEE Professionalism

The NJ Computer Society will hold a discussion-meeting on Wednesday, April 18, 8:00 P.M., at Bell Laboratories, Whippany, Room 1H-009.

M. McLarin, Chairman, will lead the discussion on the topic, "Professionalism in the New IEEE, and Your Computer Society."

## Comsoc Study Group Talks

The New York Section Comsoc Study Group plans to present two talks during April and May of this year (tentative dates; April 26, May 24). One of the speakers will be Dr. H. I. Rothrock, Assistant Engineering Manager in the Engineering Department of the American Telephone and Telegraph Company. He will discuss "Analog Parameters Affecting Voiceband Data Transmission." The other speaker will be Mr. R. J. Blackburn also an Assistant Engineering Manager in the American Telephone and Telegraph Company's Engineering Department. His topic will be on "Digital Data Service."

To aid us in arranging appropriate accommodations, please mail the attached form.

To: *Mr. R. W. Ruedisueli*  
*American Telephone & Telegraph Co.*  
*195 Broadway - Room 1130A*  
*New York, N.Y. 1007*

I wish to attend the talk on:

.....Analog Parameters

.....Digital Data Service

.....Both Subjects

.....I would prefer an afternoon rather than an evening meeting.

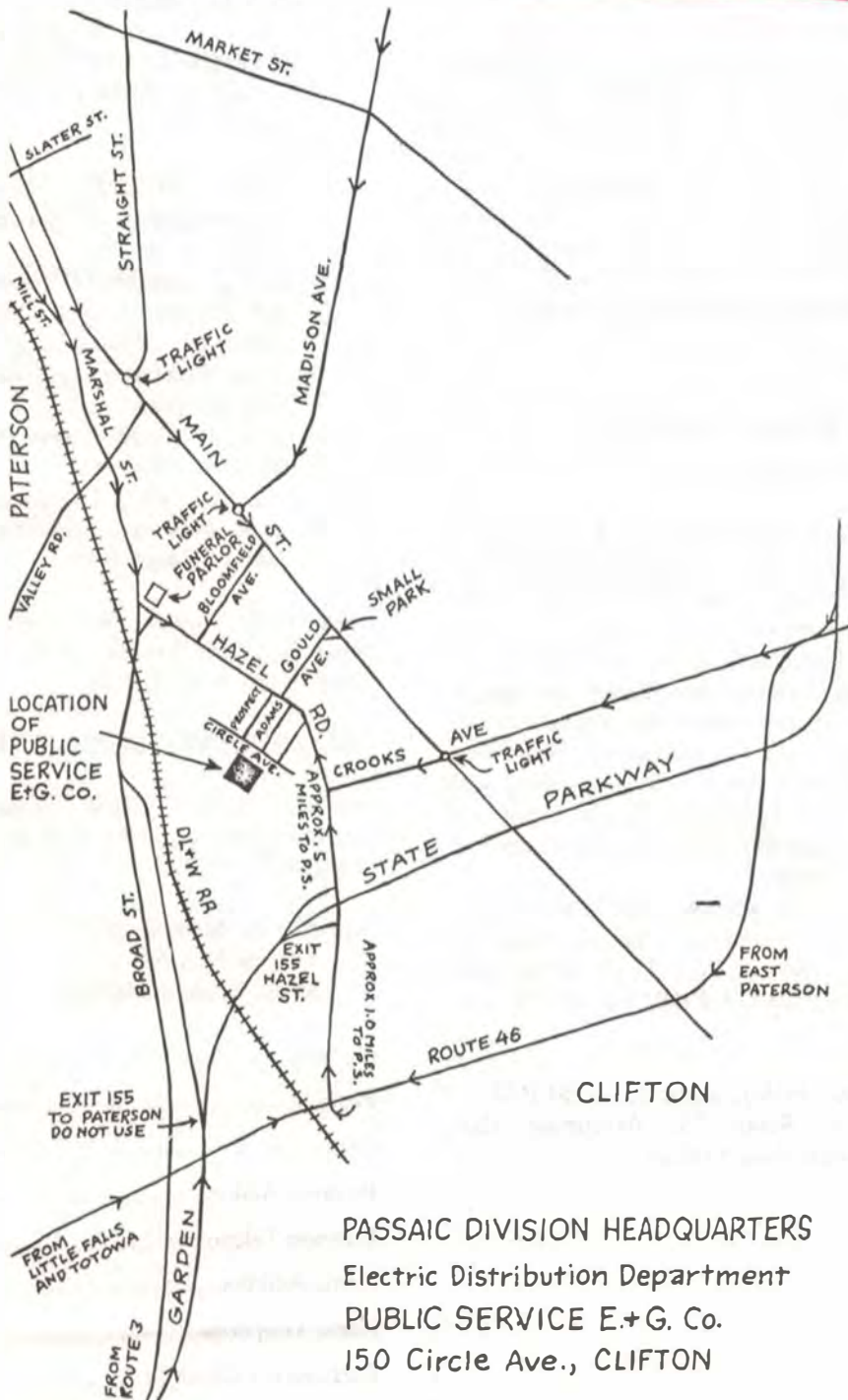
Please send me a notice when a definite date has been established.

Name .....

Position .....

Company .....

Address .....



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## Students' Night— A Success Story

"Trends in Engineering Opportunities" was the theme of the IEEE Students' Night hosted by the Fairleigh Dickinson University IEEE Student Branch at the Teaneck campus on February 7, 1973. About 140 attendees from the 4-year and 2-year colleges in the area participated in the gala affair.

After enjoying a full course dinner, the students and guests were welcomed by the FDU Branch Chairman, Mr. John Bergacs III, and by Dr. H. Silver, Chairman of Electrical Engineering Department at FDU. Two presentations followed. Mr. Craig Verpek, from Public Service Electric and Gas (PSE&G), spoke on the opportunities and future plans at PSE&G and illustrated his talk with accounts of his own experience. The second speaker, Dr. Bernard Rivin, a professor at FDU, spoke on the newly developing biomedical field, its history, immediate outlook and future trends. He illustrated his talk with slides of various equipment and techniques used in the biomedical field. (The eyepopping slide of "body repair with synthetic materials" was especially well received.) A lively question and answer period following the talks highlighted specific areas of interest.

With the exciting new developments and pending new programs in these fields it seems evident that many attractive opportunities lie ahead for students in electrical and electronic engineering and technology.

To top off the evening, more than half of the attendees won door prizes consisting of handbooks donated by RCA, Hewlett Packard, Electronic Associates and ITT.

## Help Needed!

The Education Committee of the North Jersey Section needs help. Each year a program is presented that is felt to be of interest to a large segment of the IEEE membership.

It would be desirable for each Group and Chapter to be represented on the Committee to insure that the programs are of current interest. If you are interested in serving on the Education Committee, please contact the Chairman, Frank Gialanella (201) 966-2459, Automatic Switch Co., 6 Watsessing Ave., Bloomfield, N.J. 07003 or the Group Coordinator Alan H. Stolpen (201) 256-4000 or (201) 687-9226, 2037 Balmoral Ave., Union, N.J. 07083.

## IC Phase Locked Loop Seminar

The Department of Technology of Trenton State College will present the second seminar in a series on applications of integrated circuit devices.

The seminar will discuss phase locked loops, covering basic theory and application in communications, digital circuits, instrumentation and control. Neal Obert and Norm Weiss of Signetics along with David Morgan of R.C.A., Somerville and Dr. Allen Katz of T.S.C. will participate in the program.

For registration, contact the Department of Technology, Trenton State College, Trenton, New Jersey 08625, telephone 609-771-2528. Fee: \$5.00, Students free.

**Time:** Friday, April 27, 6:30 P.M.

**Place:** Room 73, Armstrong Hall, Trenton State College.

## G-Who?

G-35, Manufacturing Technology Group (G-Mfg. T) concerns itself with manufacturing technology as it relates to the manufacture of electrical and electronic equipment. For membership and other information, contact Prof. J. Mihalasky, Newark College of Engineering, 323 High St., Newark, N.J. 07102. 645-5341

## Telephone Switching Lecture Series

IEEE New York Communications Society  
Lecture Series—Winter & Spring 1973  
TELEPHONE SWITCHING  
SYSTEMS & COMPONENTS

### Part III

- 13-14. March 20, 27 - Crossreed Central Offices—Design and Systems Considerations.
15. April 3 - Equipment Engineering for Crossreed Central Offices.
16. April 10 - Principles of Pulse Code Modulation and Time Division Switching.
17. April 17 - Application of PCM to Integrated Systems.
18. April 24 - DEX 1.A Stored Program Electronic Switching System for Large Offices.

**Place:** Little Theater, New York Telephone Co., 140 West St., N.Y.

**Time:** 6:30 to 8:30 P.M.

### TELEPHONE SWITCHING SYSTEMS

**Send to:** Mr. K. K. Clarke, Clarke-Hess Communication Corp. 43 West 16th St., N.Y., N.Y. 10011.

**Fee:** \$20 for Member-IEEE  
\$25 for Non Member  
\$5 for Student Members

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Position.....

Firm.....

Business Address.....

Business Telephone.....

Home Address.....

Home Telephone.....

Enclosed is a Check for \$.....