



## Newsletter The Magazine of the North Jersey Section

#### Yards Creek Pumped-Storage Hydro Project

Jersey Central - N. J. Power & Light Co.

Madison Avenue & Punch Bowl Road Morristown, N. J.

Wednesday November 18, 1964

7:30 P.M.



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\*U.S. Patent No. 2,872,639 †U.S. Patent No. 2,966,257

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For your convenience, the New York Office has a Service Department, manned by factory-trained service engineers. This Department can supply prompt and efficient repairs or recalibration of any G-R equipment. Considerable time can be saved by taking advantage of these facilities.

#### Editorial Notes

Tuesday, November 3, is Election Day. We do not intend to tell you how to vote. We can only hope that you have been more active for your political candidate than you have for your favorite professional organization. You have been written and talked to, talked at, ad infinitum about your lack of attendance and apparent lack of interest in IEEE activities. This makes us wonder if it is your favorite professional organization. Parenthetically, it should be noted that lack of attendance at meetings is not unique to the North Jersey Section.

Your Program Committee, chaired by J. O'Grady, and the various professional chapters have been working to lure you out of your cocoon for future meetings that number a Students' Night, tour of Shea Stadium, and

the World's Fair.

To paraphrase an old punch line: "What have you done for me lately?" Here is what we are doing for you lately (November):

1. Election Data Processing by Computer Systems

2. Radio Astronomy

3. GaAs-Si Photon-Activated Switch

4. Tour of Ford Motor Plant

5. Tutorial Session on Marine Navigation

6. Speakers and Demonstration by Burroughs Corp.

In past issues, we asked for volunteers to help produce "The Newsletter." The new editor should assume his duties with the January 1965 issue. Time is running out because the January issue is prepared in November.

#### Calendar

Thurs., Nov. 12 ELECTRON DEVICES

8:00 P.M. — "GaAs-Si Photon-Activated Switch"

ITT Labs., Nutley, N. J.

6:00 P.M. — Pre-meeting Dinner— Copperhood Restaurant Rtc. 3, Lyndhurst, N. J.

#### AEROSPACE & NAVIGATIONAL ELECTRONICS

8:00 P.M. — Tutorial Session on Marine Navigation

Willkie Memorial

20 W. 40th St., N. Y.

6:00 P.M. — Pre-meeting Dinner Old Seidelberg Restaurant 626 3rd Ave., N. Y.

#### Tues., Nov. 17 COMPUTER GROUP

8:00 P.M. — "Election Data Processing by Computer"

ITT Communications Systems, Inc.

Rte. 4 & 17 opposite Garden State Plaza Shopping Center Paramus, N. J.

6:30 P.M. — Pre-meeting Dinner—

Cambridge Inn Garden State Plaza Shopping Center

#### METROPOLITAN N. Y. CHAPTER COMPUTER GROUP

8:00 P.M. — Speakers & Demonstration

by Burroughs Corp.

605 3rd Ave., N. Y.

Pre-meeting Dinner— Executive Restaurant

633 3rd Ave., N. Y.

Wed., Nov. 18 POWER GROUP

7:30 P.M. - "Yards Creek

Hydro Project"

Jersey Central-N. J. Power & Light Madison Ave. at Punch Bowl Rd.

Morristown, N. J.

MICROWAVE THEORY & TECHNIQUES

8:30 P.M. — "Green Bank Observatory— Radio Astronomy"

Arnold Auditorium, Bell Tel. Labs.

Murray Hill, N. J.

6:30 P.M. — Pre-meeting Dinner— Wally's Tavern on the Hill

Watchung, N. J.

Thurs., Nov. 19 N. Y. POWER & INDUSTRIAL DIV.

Inspection Tour — Ford Motor Plant,

Mahwah, N. J.

11:30 A.M. — Chartered Bus from N. Y.

#### North Jersey Section IEEE Executive Committee

#### Section Officers

Section Of	Hers		
Chairman	John	K.	Redmon
Vice Chairman	Walte	er I.	Glomb
Treasurer St			
Secretary	James	W.	Gordon
Member-at-Large	ohn P	. Va	n Duyne
Member-at-Large	Roge	r M	lcSweeny
Past Chairman C	harles	W.	Vadersen

#### Standing Committee Chairmen

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Education C. C.	
History and Procedures F.	Polkinghorn
Membership	A. Paparozzi

## Nominations A. W. Parkes Program J. O'Grady Publications Bernard Meyer Student Affairs J. W. Earle

#### IEEE Group Chairmen

Techniques (MTT) ..... B. Mindes

Group Power (P) ...... Herbert Blaicher

#### The IEEE Newsletter

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November, 1964

No. 3

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All communications concerning The Newsletter, including editorial matter, advertising, and mailing, should be addressed to:

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#### ABOUT ADDRESS CHANGES

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.

REPORT ALL ADDRESS CHANGES TO:
INSTITUTE OF ELECTRICAL AND ELECTRONICS
ENGINEERS, BOX A, LENOX HILL STATION,
NEW YORK 21, N. Y.

#### NEWSLETTER STAFF

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Office Manager: A. J. LaRouche

#### **Executive Committee Meetings**

at Verona Public Library

November 4

December 2 January 6, 1965

February 3

March 3

IEEE Convention March 22-25

April 7

May 5

June 2

# Newest Ballantine R—A—P VTVM! Measures Wide Range of Voltages, Frequencies, and Waveforms

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VOLTAGE RANGE         100 µV − 330 V           RMS         300 µV − 330 V           Average & Peak         300 µV − 330 V           As null detector         to 10 µV	FREQUENCY RANGE         5 cps - 4 Mc           RMS
WAVEFORMS Sine, distorted sine, complex, pulse, random	ACCURACY, ABOVE 300 μV, MID-BAND RMS & Average2% of indication Peak3% f.s.
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## Winter Power Meeting January 31 - February 5, 1965

Plans are shaping up for the 1965 Winter Power Meeting which the Institute of Electrical and Electronics Engineers will hold from January 31 to February 5 at the Statler-Hilton Hotel, New York City.

This is the second winter session devoted exclusively to the field of power apparatus and systems and the first under the sponsorship of the newly-created Power Group of the Institute.

Attendance is expected to equal the 3,000 mark set at the first such meeting this year. All sessions and social activities will be held in the hotel.

Approximately 230 papers will be presented during the 50 technical sessions which have been scheduled for the week's meeting. Authors are being reminded that deadline for Transactions Papers is November 2, 1964, and deadline for Conference Papers is November 12.

A highlight of the week's meetings, the Habirshaw Medal Award Luncheon, will be held on Monday, February 1, in the hotel ballroom. A General Meeting will follow the luncheon.

The Winter meeting opens on Sunday, January 31, with the usual get-acquainted tea for early arrivals from 4 to 6 P.M.

Top social event of the week will be the dinner dance party Tuesday evening. It will include entertainment and dancing. Dress will be informal.

Mornings will be devoted to technical sessions while afternoons will be turned over to inspection trips which will be made available. They will include tours of Con Edison's Control Center, behind the scenes of the Radio City Music Hall, the New York Stock Exchange, Holophane Lighting and others

Activities for the ladies will begin with a get-acquainted tea on Monday afternoon. Tours are being arranged for Tuesday and Wednesday and a luncheon is planned for Thursday.

There will be no advance registration for the meetings, those details to be handled upon arrival at the hotel.

#### Program Committee Makes Plans

The Section Program Committee is in the process of setting up the schedule of programs for the 1964-65 year.

At the Committee's September meeting, it was decided to co-sponsor technical meetings with the individual Groups or Chapters as a means of attracting greater attendance and membership support for their work. In addition, the committee will supplement joint technical meetings with increased semi-technical and social activities that will appeal to more members.

Besides the technical programs, tentative social programs include: A tour of Shea Stadium and a night baseball game; control tower at Newark Airport; IEEE-sponsored day at the World's Fair. For December, a Students' Night is being arranged.

The membership is invited to send suggestions to the Program Committee for possible programs that could be scheduled in the Spring. Send suggestions to:

Mr. J. O'Grady Public Service Electric & Gas Co. 200 Boyden Avenue Maplewood, N. J.

**VOLUNTEER!** 

EXPAND
YOUR
INTERESTS!
Join
"The Newsletter"
Staff.

Joint Meeting:

North Jersey Section and Power Group

## Yards Creek Pumped-Storage Hydro Project Electrical Features

On November 18, at 7:30 P.M. at the Jersey Central-New Jersey Power & Light Company Headquarters in Morristown, the Power Group Chapter, North Jersey Section, IEEE will present a discussion of the Electrical Design and Features of the Yards Creek Pumped-Storage Hydro Project.

Rapidly increasing demands for electric power, in its versatile forms, has resulted in an intensive use of existing generation. In addition, increased use and application of quick-starting, low-cost, emergency generation, pumped storage, are presently under development as an integral part of low cost energy expansion patterns.

The Yards Creek Pumped-Storage Hydro Project, therefore, plays a vital role in the capacity expansion pattern of Jersey Central-New Jersey Power & Light and Public Service Electric and Gas Companies. The development of this pumped-storage hydro project, because of its geological location, requires unique, imaginative and complex design, development, and application of electrical instrumentation, control and station equipment.

Mr. D. E. Massey, System Substation Engineer, of Jersey Central Power & Light Company, responsible for electrical design and development of the project, will outline the unique and complex characteristics of this project.

For a very enlightening and informative discussion, mark your calendar, attend and participate in the forthcoming meeting of the Power Group Chapter, North Jersey Section, IEEE on November 18, 7:30 P.M. at Jersey Central-New Jersey Power & Light Company Headquarters, Madison Avenue and Punch Bowl Road in Morristown.

MEETING NOTICE

7:30 P.M., Wed., Nov. 18

Place:

Yards Creek Pumped-Storage

Hydro Project

Speaker:

D. E. Massey

Subject:

Jersey Central-N. J. Power & Light Madison Ave at Punch Bowl Rd. Morristown, N. J. The Power Group Chapter in North Jersey Scction, IEEE has been organized to bring together all Engineers, whether Section Members or not, who have a common interest in the technology of Power Generation, Transmission, Distribution, Control and Utilization. This should encompass, not only Utility Engineers and their equipment suppliers, but those who design and operate Industrial Power Systems, as well as Consulting Engineers, Engineering Contractors, and Industrial Designers.

It is the responsibility of, and a challenge to, the Executive Committee of the Power Group Chapter to provide a varied and interesting program to meet the diverse needs of our membership. Future meetings presently being planned are as follows:

January — A session on Engineering Economics

March — A Round Table Discussion on Industrial Power Distribution

May — An Inspection trip to see a unique Commercial Distribution System

The greatest problem which we face is that of reaching those Section Members who are not aware of our aims, overcome their apathy toward the Group Concept and persuade them to become Power Group Members. To this end, each of us must consider himself as ambassador of the Power Group — each conducting his own personal membership campaign. At present there are approximately 180 members of the Group in the North Jersey Section, which is not really a good representation of the potential membership in the North Jersey Section.

It should be remembered that the Power Group is the only official organ of the Power Industry in IEEE. In order to assure that our industry receives its proper consideration in IEEE, a strong, active Power Group is a necessity. To become a Group member, simply send \$6.00 to IEEE Headquarters and mention that you want to become a member of G-31 the Power Group. This will make you a member of the National Power Group, the Local Chapter, and entitle you to a year's subscription to Power Apparatus and Systems which is now a monthly rather than bi-monthly publication. Won't you take the time to join us in our efforts?

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#### Chairman's Corner

by John K. Redmon

Since my last column, the 1964-65 year has gotten off to a good start, but in view of some events, it seems that there is still plenty of room for improvement in our operations. Except for the filling of the job on the Executive Committee of the Publicity Chairman, which is still vacant, we have been able to secure the services of well qualified and highly dedicated persons to take over each of the committee assignments. I have had the opportunity of meeting with all these chairmen and a large majority of their respective committees and can assure the membership that they will all do their utmost to assist the Section in providing the services desired and needed by the membership. Our first joint Section-Group meeting has been held and frankly, the attendance of the Section leaves a great deal to be desired. Certainly the topic was timely and the speakers well qualified. Why only about 30 members of the section's membership of over 5000 attended this meeting is of great concern to your chairman. On the next evening, the first session of the Fall Study Group on Overall Communications Systems got underway at the N. J. Bell Telephone Company's Vail Hall in Newark. At the first session 20 persons had registered for this 12 session course. The persons who planned and put into execution this study group, and the speakers who have prepared this course were greatly disappointed at the poor showing of the membership. Admittedly, the subject matter may be somewhat specialized but I feel that surely, at least 100 persons in our membership are directly concerned with this area of activity to the extent that this study group could contribute greatly to their professional well-being. The bound volumes of the notes are well worth 50% of the cost of the sessions and the total cost of \$30.00 for members certainly should not be a deterrent. If you think so, compare it to the cost of just one graduate credit cost in any university or college in the metropolitan area.

In spite of these seeming setbacks, the Section is continuing to plan and provide interesting and stimulating programs for the membership. By the time you receive this issue of the Newsletter, the October Joint Section-Group Meeting will be past history. At this meeting, it is fully expected that the Section By-Laws will be approved by the membership present. This approval by the membership is not required by the Section Constitution, but your Executive Committee felt that the membership should have an opportunity to express their opinion on this new document of our section. Soon after you receive this issue, your chairman will be journeying to Boston to attend the Region 1 Committee to discuss with other Section Chairmen and the officers of the Region mutual problems that affect our Institute. Through interchanges of this type, the Section has the benefit of the good ideas of our neighboring sections, and we can also give them the benefits of such successful projects as have been conducted by our Section.

In December, the section will sponsor our annual Students' Night meeting as a Joint Meeting with the Student Affairs Committee handling the arrangements and planning the program. It is our hope that we can get many of the students of our three engineering colleges out to this program, so that they will know the advantages of being members of the Student Chapter of the IEEE. We also hope to encourage them to become members of the IEEE after graduation. We are planning a top-notch program and we hope that the members of the Section will come to this meeting and share in informal conversations with the students before and after the formal program. Through just such contacts, the student's ideas concerning his future profession can be enriched, and his stimulated interest in the IEEE will provide the necessary new blood essential for the success of our organization's future.

So, with these gripes, challenges, comments, and pleas, I will put my column to bed for this issue. If you have not been showing the interest one might hope for toward the activities of our Section, may this be the prod necessary to rectify that situation. If you have been contributing and seeing few encouraging results, don't get discouraged, but strive harder, along with your executive committee, to come up with new plans to remedy this situation.

Let's all join hands and not only make the load lighter but make this Section the best in the country in service to its membership.

### Microwave Theory & Techniques

## GREEN BANK OBSERVATORY Radio Astronomy



Radio astronomy has grown from the discovery by K. G. Jansky of radio waves emitted by our galaxy to what is now a major branch of astronomy.

About eight years ago Associated Universities, Inc., signed a contract with the National Science Foundation to build and operate a national observatory for radio astronomy, at which visiting and staff scientists could carry out their researches using major instruments. Since the start of the Observatory at Green Bank, West Virginia, several large instruments have been built. One of these, the 300-foot transit mounted parabolic antenna, has now been in use for more than two years. This instrument is interesting both for its size and relatively low cost and also because of the variety of work which has been done with it. A new and more precise catalog of radio sources has been compiled. Hydrogen within our own galaxy is being mapped with great detail, and the quantity and distribution of hydrogen in more distant galaxies is measured. Polarization measurements of many radio sources have been made.

A second instrument of high resolution and potentially great value, which has just started work at Green Bank, is the phase-stable interferometer, using a wavelength of 1 cm and a baseline up to 2700 meters long. With such an instrument

#### MEETING NOTICE 8:30 P.M., Wed., Nov. 18

Subject: Green Bank

Observatory -

Radio Astronomy

Speaker: John W. Findlay Place: Arnold Auditorium

Bell Tel. Labs.

Murray Hill, N. J.

**Pre-meeting** 

Dinner: 6:30 P.M., Wally's

Watchung, N. J.

the sizes and positions of small diameter sources are measured and first steps can be taken to map small areas of sky to resolutions of a few seconds of arc.

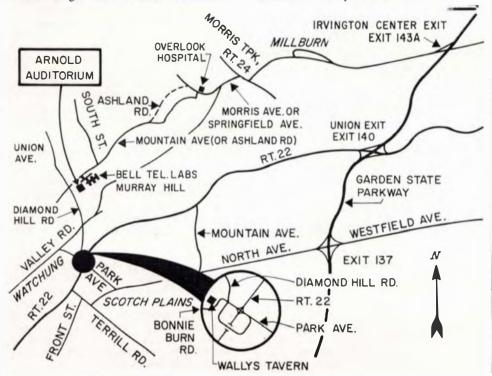
Neither of these two instruments, nor the stable low-noise radiometers used with them, represents the end of radio astronomers' desires. Larger and higher resolution antennas are now being discussed and will hopefully be built in the years to come

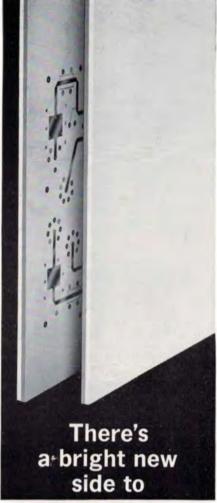
John Wilson Findlay was graduated with first class honors in physics from Cambridge University, England, in 1937, and received the Ph.D. degree from that University in 1950.

From 1954 to 1956, he was a senior principal scientific officer in the Ministry of Supply in London working on basic electronics research and on development of ground radar for the R.A.F. and Army. Since 1956 he has been employed by Associated Universities, Inc., at the National Radio Astronomy Observatory, Green Bank, West Virginia, where he holds the position of Deputy Director.

He is a member of the Order of the British Empire, a Fellow of the London Physical Society and Institute of Physics, a Senior Member of the IEEE, a member of the American Astronomical Society, and a member of the Space Science Board of the

National Academy of Sciences.





## **POLYGUIDE**

from E.C.C.

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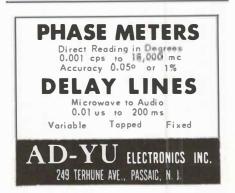
## professional notices

#### Wheeler Laboratories, Inc.

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Consultation — Research — Development Radar and Communication Antennas Microwave Assemblies and Components Laser Devices and Applications Harold A. Wheeler and Engineering Staff Main office:

Great Neck, N. Y. HUnter 2-7876 Antenna Laboratory: Smithtown, N. Y.



Rates for professional notices (classified advertising): \$15 per inch. For ten consecutive insertions rate is \$12 per inch. For details write IEEE Newsletter, Box 275, Morris Plains, N. J.

#### **DEMONSTRATION**

The November meeting of the Metropolitan New York Chapter of the IEEE Computer Group will be devoted to a discussion of the computing-equipment line of Burroughs Corp. The meeting is one in a series of manufacturers' nights during which technical representatives of the computer firms describe their companies' lines specifically for Chapter members and answer a broad spectrum of questions.

The meeting is scheduled for Tues., Nov. 17 at 8 P.M. It will be held in the thirdfloor auditorium of the Burroughs Corp. building at 605 Third Ave. (39-40th St.) in Manhattan. The meeting will be preceded by a Dutch Treat dinner at the moderately priced Executive Restaurant, 633 Third Ave. (corner of 40th St.)

The speakers for the evening will be Dr. William D. Murray, Director of Research of the Defense and Space Group of Burroughs Corp., and Ralph E. Butt, Burroughs Data Processing Sales Manager of the New York District. The meeting will conclude with a brief demonstration of true multiprocessing on a B5000 installation in the building.

#### **Electrical Measuring Instruments**

Instrumentation Division, New York Section of IEEE will present a seminar on Electrical Measuring Instruments for the Engineer, Tuesday, November 17, 1964.

To be held at the General Electric Auditorium, 570 Lexington Ave., New York, N. Y., the seminar will last one full day.

Material covered will include:

1. What Engineers Should Know About **Electrical Measuring Instruments** 

9:00-10:20 A.M.

Speaker: L. J. Lunas,

Advisory Engineer; Westinghouse Electric; Newark, N. J.

In the essential part of his talk Mr. Lunas will lay the ground work on electrical instruments by discussing such basic factors as accuracy, precision, scale length, pointers, scales, functions, and environmental factors. Then he will describe the effects of such common parts as pivots, springs, taut bands, and jewels on digital performance.

2. DC Instruments - Specific Design, Selection of, and Application

10:40 A.M.-12

John Jockel. Speaker:

> Assistant Chief Engineer; Weston Instruments, Inc.;

Newark, N. J.

The speaker discusses the basic design in mechanical construction of permanent magnet moving coil meters. Then he analyzes the electrical considerations and their practical limitations. Finally he shows how to

#### Aerospace & Navigational Electronics

#### **Marine Navigation**

The November 1964 meeting of the New York Metropolitan Chapter of the Group on Aerospace and Navigational Electronics (GANE) will be held as follows:

Date: Thursday,

November 12, 1964

Time: 8:00 P.M.

Place: Willkie Memorial

Auditorium

20 West 40th Street New York City

Subject: Tutorial Session on Marine Navigation

Speaker: Commander Alfred Fiore U. S. Merchant Marine

Academy

Kingspoint, New York

Pre-meeting

6:00 P.M.

Dinner:

Old Seidelberg Restaurant 626 Third Avenue (Between 40th & 41st Streets on the West side of Third Avenue)

extend the ranges of the basic dc meter with such accessories as shunts, multipliers, rectifiers, and thermoelements.

Lunch: 12:00-1:30 P.M.

3. AC Instruments — Specific Design, Selection and Application

Time: 1:30-2:50 P.M.

Speaker: Ralph Rowell, Instrument Div.;

General Electric Co.; West Lynn, Massachusetts

In his talk Mr. Rowell considers basic designs of ac meters and the effect of these designs for specific applications. Among the types of meters he will discuss are repulsion iron, repulsion attraction, dynamometers, and rotating iron. Following this he will discuss the electrical considerations of these types of meters. And finally he explains such accessories as current and voltage transformers to extend various ranges of ac meters.

#### 4. In-Plant Meter Calibration **Techniques**

Time: 3:10-4:30 P.M.

H. Russell Brownell, Speaker: Chief Engineer;

Electrical Measurements; Metrics Div.; Singer Co.; Bridgeport, Connecticut

Operational meters in plants and test equipment must be checked periodically to assure their proper performance and accuracy. In this concluding paper Mr. Brownell will present some general guide lines to calibrator and comparison methods, describe accumulation and use of statistics of calibration, and then concentrate the balance of his talk on available calibration consoles - their features, ranges, and economics

Attendance fees are: \$25 for non-members; \$15 for members of any affiliated professional society; \$1 for student members. Those wishing to register prior to November 17, 1964 should make checks payable to Instrumentation Division, New York Section, IEEE. Checks, along with name, company, professional society and self-addressed envelope should be mailed to M. D. Bowers, c/o Instrument Division, Thomas A. Edison, Inc., 51 Lakeside Avenue, West Orange, New Jersey.

Commander Fiore took degrees from Columbia University and the U.S. Merchant Marinc Academy. He is now a full professor in the Department of Nautical Science at the United States Merchant Marine Academy at Kingspoint, New York, where he is head of the Marine Electronic Department. He is a Commander in the United States Merchant Marine and is also a Captain in the United States Naval Reserve. He has filled a number of land and sea billets prior to his present position at the Marine Academy which is administered by the Department of Commerce. He is a member of the Institute of Navigation, the American Meteorology Society, the Navy League, and the Navy Reserve Association.

#### NY Power & Industrial Div.

# Inspection Trip Thursday, November 19, 1964 Ford Motor Company Assembly Plant Mahwah, New Jersey

The tour will follow the assembling of a 1965 passenger car from the bare frame to the showroom product and will include some automation. The trip will take one and a half hours and will be limited to 50 persons, with advance registration required.

A chartered bus will leave New York from in front of the Hotel Holland, 321 W. 42nd Street (between 8th & 9th Avenues) at 11:30 A.M. and should return by 4:00 P.M. Round trip fare — \$1.75.

Private passenger cars will be allowed at the plant. A map showing the location of the plant and the suggested parking area has been prepared.

Make checks payable to Power & Industrial Division, New York Section, IEEE. No request will be considered after November 18, 1964.

Please send requests for tickets, a check for the proper amount and a stamped, self-addressed envelope to:

J. A. FlorenLong Island Lighting Company175 East Old Country RoadHicksville, Long Island, New York

Please send me ...... ticket(s) for the inspection trip to the Ford Motor Company Assembly Plant.

(Price — \$1.75 per ticket)

I will provide my own transportation and would like a map showing the location of the plant and the suggested parking area.

Name	

#### Electron Devices

#### PHOTON-ACTIVATED SWITCH



A talk on "GaAs

— Si Photon-Activated Switch" will be presented by Peter Polgar at the next meeting of the Metropolitan Group on Electron Devices.

The meeting will be held Thursday, November 12, 1964 at the International Telephone & Telegraph Laboratories, Nutley, N. J. at 8:00 P.M. A pre-meeting dinner will be held at the Copperhood Restaurant (South of Route 3 at Park Avenue Exit) at 6:00 P.M.

A light-activated low-level switch has been developed for multiplexing applications. The switch consists of an electroluminescent GaAs PN Diode and a double-emitter silicon transistor. (Both NPN and PNP units have been made.) The two (light emitter and detector) are coupled optically. The switch is a substantial improvement over existing switching devices used in multiplexors.

A general design theory based on Ebers & Moll's paper is given with special emphasis on breakdown voltage, "ON"

impedance, offset voltage, and switching speed. It is shown how the design considerations lead to a specific geometry for the detector. Results of extensive testing are reported.

#### The Speaker:

Peter Polgar was born in Budapest, Hungary on September 4, 1936. He received his BES degree in Electrical Engineering from Brigham Young University in 1960, where he completed the course requirements for an MSEE degree. He received his MS degree in Physics in 1963 from Rutgers — The State University. Mr. Polgar joined IBM, Poughkeepsic in 1963 where he worked in the field of Opto-electronics. Mr. Polgar is a member of the IEEE, Sigma Pi Sigma, and Sigma Xi.

#### MEETING NOTICE

8:00 P.M., Thurs., Nov. 12

Subject: GaAs-Si

Photon Activated Switch

Speaker: Peter Polgar

Place: ITT Labs.

Nutley, N. J.

Pre-meeting

Dinner: 6:00 P.M.

Copperhood Restaurant Rt. 3, Lyndhurst, N. J.

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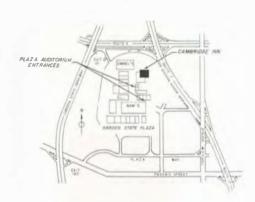
#### Computer

#### **Election Data Processing by Computer**

An interesting and timely meeting on processing of election data will be held which will include the following areas of discussion: history of development, pre-election preparation, handling of election night activities and post-election analysis. The equipment configuration to be described consists of two 7010 computers in duplex, two 1440 computers in duplex and thirty 1050 input typewriters. This equipment is organized into a real-time teleprocessing system in that the typists are provided with telephone headsets and type the input directly into the system. The Speaker:

Mr. Eikenberry received the Bachelor of Arts and Master of Arts degrees from the University of Puget Sound, Tacoma, Washington. In 1955 he joined the IBM Corporation as an Applied Science representative. He has held several positions involving the installation of major computer systems. He is currently assigned to IBM Corporate Headquarters as Manager of Election Processing Activities.

#### **GUESTS ARE WELCOME**



## Former Lionel Executive Heads New Company Specialize in Electromechanical and Electromagnetic Products



Relays, motors, specialty transformers, and motor-operated controls for the consumer electronics, industrial controls and toy fields are the product line of a new

company organized by John DiGirolamo, formerly an engineering and marketing manager at Lionel Corp. Engineering, design, and manufacturing facilities of the new company, Jerome Electronics, are at 150 Pine Street, Montclair, N. J. This new corporation offers design services and production facilities for pilot lot or volume assembly.

Mr. DiGirolamo brings an extensive background of developing and marketing products to the new company. From 1950 to 1959, years in which Lionel specialized in products for the toy industry, he was in charge of new product development and headed the electrical engineering laboratories and project engineering departments at Lionel's Hillside, N. J. facilities. During this period he received a variety of patents on electromechanical components and electrically operated toys.

From 1959 to September of this year, Mr. DiGirolamo's efforts at Lionel were devoted to development and marketing of products for the electronic and industrial control industries. This work resulted in a line of relays, motors, and motor-operated controls now being used by major producers of color television sets for remote control applications. He is a Senior Member of the IEEE, and a member of the North Jersey

#### MEETING NOTICE

Date: Tuesday,

November 17, 1964

Time:

8:00 P.M.

Place:

ITT Communications Systems, Inc. Routes 4 & 17

Paramus, New Jersey (Opposite

Garden State Plaza Shopping Center)

Pre-meeting

Dinner: 6:30 P.M. at

Cambridge Inn, Garden State Plaza

Subject: Use of

Computer Systems in Election Data Processing

Speaker:

Mr. R. C. Eikenberry, IBM Corp.

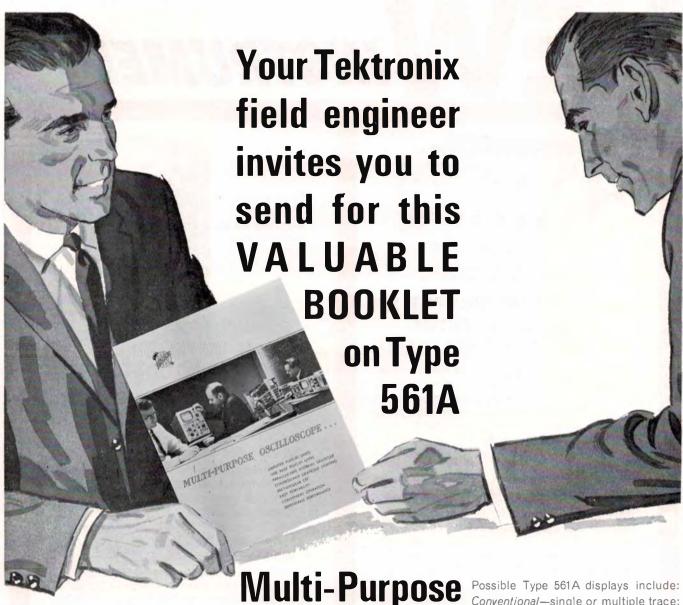
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