



The IEEE

# Newsletter

The Magazine of the North Jersey Section

**Joint Meeting of New Jersey Shore & North Jersey Section  
Computer Systems For Better Patient Care**

8:00 P.M., Wednesday, April 22

St. Barnabas Medical Center

Livingston, N. J.

APRIL, 1970



# Electronics Usages & Misusages in Air Navigation Control

Mr. Harry Davis, Deputy Undersecretary of the Air Force, will be the speaker at the April 16 meeting of the Metropolitan G-AES and N. J. Comm-Tech Chapters. His topic will be "Usages and Misusages of Electronics in Air Navigation and Traffic Control."

## About the Talk

There is a near crisis in air traffic control and Mr. Davis will address the possibilities which this problem offers to the electronic engineer.

Electronics is already playing an important role in air navigation control; obviously, it can play an even larger role. However, in attempting to tackle this larger role, the engineer is prone to become too enthusiastic and often unrealistic. Mr. Davis will cite examples of systems and ideas which have been developed to hardware demonstration; he will then analyze the reasons for failure.

Pointing to the future, Mr. Davis will present a summary of various approaches to solving air navigation and traffic control problems. He will describe a number of integrated communication and navigation concepts which are being proposed and review their strengths and deficiencies. Finally, Mr. Davis will show that there is hope in a solution which can stand all sorts of scrutiny.

## About the Speaker

Harry Davis is Deputy Undersecretary of the Air Force, Systems Review, and assists the Secretary and Undersecretary in all matters dealing with navigation, guidance, communication, radar, IFF, reconnaissance, and command and control.

Mr. Davis is a graduate engineer with degrees in electrical engineering from CCNY and Brooklyn Poly Tech. He is a Fellow of the IEEE.

*Time:* Thursday, April 16; 8:00 P.M.

*Place:* The Engineering Auditorium, ITT Federal Laboratories, 5000 Washington Ave., Nutley, N. J. (building under ITT Tower, 3 blocks south of Main Avenue exit from Route 3)

*Pre-Meeting Dinner:* The Copperhood Restaurant, 1 Park Avenue, Lyndhurst, N. J. 6:15 P.M. (just south of Route 3 exit at Park Avenue)

## MEETINGS CALENDAR

### Tuesday, April 7

New York Joint Chapter on Instrumentation and Measurement — **Air Pollution Control Instrumentation**, Dr. Edward F. Ferrand, Speaker. Room 21 E, Engineering Building, Cooper Union, 51 Astor Place, New York City, 6:30 P.M.

### Wednesday, April 8

New York Communication Technology Group — **Color TV — Principles and Servicing**, First in a series of seven lectures held at the Auditorium, 32 Avenue of the Americas, New York City. 6:30 P.M. to 8:30 P.M.

### Tuesday, April 14

Metropolitan New York Joint Chapter on Instrumentation and Measurements — **A Study series on Oceanographic Instrumentation and Measurements**. First of seven weekly sessions. Con Edison Building, Irving Place and 14th Street, New York City. Room 1425. 7:00 P.M. to 9:00 P.M.

### Wednesday, April 15

Transmission and Distribution Group — **General Discussion on Distribution Voltage Regulators**. Union Carbide Corporation, 270 Park Avenue, New York City. Third Floor Meeting Room. 6:30 to 8:30 P.M.

### Thursday, April 16

New York Metropolitan Chapter, Engineering Management Group — **The Engineers are Restless, A Study in Motivation**. Mr. Robert N. Ford, Speaker. Engineering Societies Building, 345 East 47th Street, New York City, Room 125. 7:30 P.M.

IEEE Groups on Communications Technology and Aerospace and Electronic Systems — **Usage and Misusages of Electronics in Air Navigation and Traffic Control**. Mr. Harry Davis, Speaker. Engineering Auditorium of ITT Federal Laboratories, Nutley, N. J. 8:00 P.M. Dinner — 6:00 P.M. Copper Hood, Lyndhurst, N. J.

North Jersey Multi-Group — **Methods of Network Analysis — Network Analysis in Highway Planning, in Communications Systems, and in Power Supply Design**. Public Service Building, 80 Park Place, Newark, New Jersey, Room 3171A. 7:30 P.M.

Joint Chapter G-EMC — **Spectrum Analysis Seminar — Panel Members: Alan Ross, Parker Cope, James Brown, George Stanley, and L. I. Kent**. Brooklyn Polytechnic Institute Auditorium, Route 110, Farmingdale, Long Island. 8:00 P.M.

### Friday, April 17

New York Power and Industrial Division — **Home of the Future and Electric Living in the '70's** — Mr. B. J. Kollenborn, Speaker. Consolidated Edison Auditorium, 19th Floor, 4 Irving Place, New York City. Refreshments 6:00 P.M. Meeting 6:30 P.M.

### Monday, April 20

New York Metropolitan Chapter, Engineering Management Group — **Financial Aspects of Management**, First of five weekly two-hour sessions. Long Island Graduate Center, Brooklyn Polytechnic Institute, Farmingdale Campus, Farmingdale, Long Island. 7:00 to 9:00 P.M.

### Wednesday, April 22

New York Communication Technology Group — **Lunar Module Avionics** — Dr. Arthur Rosoff, Speaker. Park 100 Restaurant, 41st Street and Park Avenue, New York City. 12:00 Noon.

North Jersey and Shore Computer Groups, Shore Bio-Medical Group — **Computer Systems for Better Patient Care** — Main Auditorium, St. Barnabas Medical Center, 94 Old Short Hills Road, Livingston, New Jersey. 8:00 P.M.

*(Calendar continued on page 4)*



# 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 1969-1970



M.M. Irvine



H.E. Blaicher, Jr.

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## Computer Systems For Better Patient Care Subject of Joint Meeting

The Computer Chapters of the North Jersey and the New Jersey Coast Section and the Bio-Engineering Chapter of the New Jersey Coast Section will jointly sponsor a meeting at the Saint Barnabas Medical Center in Livingston, New Jersey, on April 22.

The topic of discussion will be "Computer Systems for Better Patient Care", and will feature a talk by Mr. Roger L. Winner, Vice-President, Meditek Information Systems, Inc.

### About the Talk

Hospitals are being pressed by health insurance agencies and the Federal Government to control costs, while at the same time, people are demanding better medical care for all sectors of our population. One solution to this problem is a computer-based information system, utilizing a central computer connected via telephone lines to terminals at each nurses' station and ancillary department. Use of such a system provides instant communication throughout the hospital, automatic scheduling of various activities, rapid retrieval of needed information and automatic collection of data to provide better patient care, financial control and an automatic building of medical records. Since the primary user of such a system is the nurse or physician, much importance must be placed on the computer/nurse interface. Mr. Winner's discussion will review the system design criteria of the information system with primary emphasis devoted to proper terminal selection.

### About the Speaker

Roger Winner is Vice President and Director of Technical Development for MEDITEK Information Systems, Inc., Red Bank, New Jersey. His current efforts are directed towards the development of a computer-based hospital information system. Prior to his association with MEDITEK, Mr. Winner was the Programming Manager for Monmouth Medical Center, Long Branch, New Jersey, where IBM's Hospital Information System was developed. Mr. Winner received his B.A. in Mathematics from Rutgers University and a M.S. in the specialty of electronic computers from Newark College of Engineering. He is a member of the ACM.



*Time:* Wednesday, April 22, 8:00 P.M.

*Place:* Saint Barnabas Medical Center Main Auditorium, 94 Old Short Hills Rd. Livingston, N. J. 07039.

*Pre-Meeting Dinner:* Rod's 1920's Road House, 525 Northfield Ave. (Northfield Rd.), West Orange, N.J. 6:00 P.M.

*Dinner Reservations:* Vasant Prabhu, Bell Telephone Laboratories, Holmdel, N.J. (201) 949-4510 (Office) or (201) 747-5418 (Home).

## Network Analysis

The April 16th meeting of the North Jersey Multi-Group will feature talks by three speakers on the subject of "Methods of Network Analysis".

The speakers and their scheduled topics are as follows:

**R. E. HUBBLE**, Commissioner of the Highway Planning Department, State of Delaware—"Network Analysis in Highway Planning".

**B. YAGED**, Supervisor of the Network Analysis Group of Bell Telephone Laboratories, Holmdel, N.J.—"Network Analysis in Communication System Planning".

A Speaker from Public Service Electric and Gas Company—"Network Analysis in Power Supply Design".

*Time:* Thursday, April 16, 7:30 P.M.

*Place:* Public Service Building, 80 Park Place, Room 3171A, Newark, N.J.



## Report from the: Nomination Committee

### Nomination of Section Officers

The Nominating Committee is offering the following slate of individuals as candidates to serve as North Jersey Section IEEE officers for the period from July 1, 1970 to June 30, 1971:

*Chairman - H. E. Blaicher, Jr.*

*Vice Chairman - R. G. Sokalski*

*Treasurer - C. C. Torell*

*Secretary - R. P. Misra*

*Member at Large (1) - John Gerth*

*Member at Large (2) - E. C. Neu*

### Independent Nominations

Additional nominations may be made by a petition signed by no fewer than 25 voting members of the Section and transmitted to the Secretary for submission to the Executive Committee not later than April 30. The petition must certify that persons nominated have agreed to serve if elected.

### Election of Officers

The election of officers shall take place at the May general meeting of the Section, unless the Executive Committee decides that a mail ballot is required. In case a mail ballot is used, it shall be sent out to all voting members no later than May 10 and shall be returned no later than one month from the date of mailing. In the case of a mail ballot, the Chairman shall appoint at least three tellers having the approval of the Executive Committee to

count the mail ballot within one week after the closing date for returns.

### Institute Committees and Boards

In addition to recommending a slate of candidates for Section offices, the Nominating Committee is also charged with recommending to IEEE Headquarters the names of suitable individuals to serve on various Institute Committees and Boards. Any Section member who wishes to propose nominees for Section Committees and Boards should contact the Chairman of the Nominating Committee whose name and phone number are shown below.

### Section Nominating Committee

The Section Nominating Committee consists of the following individuals:

*S. A. Mallard (Chairman), Public Service Electric and Gas Co.*

*A. R. D'Heedene, Retired (Formerly Bell Telephone Laboratories)*

*W. L. Glomb, ITT Federal Laboratories*

*L. J. Lunas, Westinghouse Electric Corporation*

*J. G. O'Grady, Public Service Electric and Gas Co.*

*F. Polkinghorn, Retired (Formerly Bell Telephone Laboratories)*

If there are questions related to any of the above material, or any aspect of the nomination process, those inquiries should be directed to: *S. A. Mallard, Chairman, Section Nominating Committee, Public Service Electric and Gas Company, 80 Park Place, Newark, New Jersey 07101. Phone: MA2-7000, Ext. 2117.*

## Applications of Semiconductor Memories

Dr. David A. Hodges, Head of the Systems Elements Research Department of the Bell Telephone Laboratories, will be the guest speaker at the April 28 meeting of the New York Chapter of the IEEE Computer Group. Long active in the area, Dr. Hodges will speak on the applications of Semiconductor Memories, both for read-only storage (ROS) as well as very fast read-write storage. Such memories have nanosecond speeds, and are finding wide applications to scratchpad memories in large computers as well as storage in small terminals and calculators. This trend is bound to speed up as prices come down.

*Time: Tuesday, April 28; 7:45 P.M.*

*Place: Burroughs Corporation Auditorium, 605 Third Avenue at 39th Street, N. Y. C.*

*Pre-Meeting Dinner: Longley's Restaurant on 39th Street just off Third Avenue, N.Y.C. 6:00 P.M. No reservations needed.*

## Lunar Module Avionics

The Comm Tech Group Chapter of the IEEE will present a lecture by Dr. Arthur Rosoff of Grumman Aerospace Corporation on "Lunar Module Avionics" on Wednesday, April 22.

### About the Talk

This timely presentation, in view of the extraordinarily successful Apollo Program, will cover the following LM Avionic subsystem: Primary Guidance and Navigation; Communications; Abort Guidance; Rendezvous Radar; and Landing Radar.

Included in the presentation will be a film on the Apollo 12 mission.

*Time: Wednesday, April 22; 12:00 Noon.*

*Place: Park 100 Restaurant, corner of 41st St. & Park Ave., N.Y.C.*

*Cost: \$4.00 per person (includes lunch). Make checks payable to Comm-Tech Group Chapter, N.Y. Section IEEE.*

*For reservations write to: Mr. H. Richter, Data Services & Transmission Engineer, New York Telephone Company, 1250 Broadway, New York, N.Y. 10005. Phone: (212) 394-6240.*

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### MICROWAVE SEMINAR

*(Details on page 6)*

### CALENDAR (Continued from page 2)

#### Saturday, April 25

Metropolitan Student Council Prize Paper Contest — Fairleigh Dickinson University, Teaneck, New Jersey. 10:00 A.M.

#### Tuesday, April 28

New York Computer Group — Applications of Semiconductor Memories — Dr. David A. Hodges, Speaker. Auditorium of Burroughs Corporation, 605 Third Avenue, at 39th Street, New York City. 7:45 P.M.

#### Wednesday, April 29

North Jersey Automatic Controls Group — Transit and the Computer: Control and Engineering. Mr. Mayer Horn, Speaker. ITT Auditorium, Nutley, New Jersey. 8:00 P.M.

#### Wednesday, May 6

Metropolitan Joint Group, P.M.P. — Corona in Electronic Components — Four Speakers — A.T.T. Long Lines Building, 32 Avenue of the Americas, N.Y.C. 10:00 A.M.

#### Saturday, May 16

Metropolitan Joint Chapter on Instrumentation and Measurement — Field Trip to the Indian Point Atomic Power Plant, Buchanan, New York. 10:00 A.M.



## Spectrum Analysis Seminar by G-EMC

The Metropolitan Chapter of the Electromagnetic Compatibility Group will sponsor a Spectrum Analysis Seminar on April 16 at the auditorium of the Farmingdale Campus of Brooklyn Polytechnical Institute. All engineers, technicians, and students interested in the latest in efficient EMC measurement techniques should plan to attend this meeting.

The AIL Division of Cutler-Hammer, Nelson-Ross/Polarad, Singer Co. Instrumentation Division, Hewlett Packard, and Fairchild Electro-Metrics will have a speaker on the Seminar Panel. Each company will also have their Spectrum Analysis instrumentation on display. This is a real opportunity to get expert answers and meaningful discussion of your doubts and concerns about spectrum analysis applied to EMC measurements.

The panel members will be Alan Ross

of Nelson-Ross/Polarad, Parker Cope of Fairchild Electro-Metrics, James Brown of Singer Co., Instrumentation Division, George Stanley of Hewlett Packard and L. I. Kent of AIL Division of Cutler Hammer.

**Time:** Thursday, April 16; 8:00 P.M.

**Place:** BPI Auditorium, Broad Hollow Road (Route 110) just North of Fulton Street (Route 109), Farmingdale, N. Y. Call Bob Brooks at AIL, (516) 595-3136 or Paul Schreiber at Metex Corporation, (201) 287-0800, Ext. 822 for supper reservations.

## Management Meeting Covers Restless Engineers

The Engineering Management Group will have as the topic for the April meeting "The Engineers are Restless," a study in motivation. Factors involved in dealing with people, motivating subordinates, and

understanding one's own actions will be discussed.

The speaker will be Robert N. Ford, Personnel Director, Manpower Utilization, American Telephone & Telegraph Company. This is a new function in the Bell System, encompassing studies in the utilization of personnel, together with advice and training in this field.

Mr. Ford received his Ph.D. from the University of Pittsburgh in 1940, and joined the Bell System several years later. In the past few years, he has become particularly interested in the relation between job enrichment and work motivation. In addition to several articles on the subject, he has recently had published a book, "Motivation Through the Work Itself" (Amer. Mgmt. Assoc., N.Y.C., 1969) which reports the experimental results and gives rather precise steps on how-to-do-it.

Members and non-members are invited.

**Time:** Thursday, April 16, 1970; 7:30 P.M.

**Place:** Engineering Societies Building, 345 East 47th Street, New York City, Room 125.

## Oceanic Instrumentation and Measurement

A Study Series Sponsored by the Metropolitan New York Joint Chapter on Instrumentation and Measurements, IEEE, serving New York, New Jersey, and Long Island.

**Time:** Tuesdays, April 14 through May 26; 7:00 P.M.-9:00 P.M.

**Place:** Con Edison Building, Room 1425, Irving Place and 14th Street, N. Y. C.

**April 14:** Dr. Ross Williams, Columbia University

Oceanographic Instrumentation & Measurements - An Overview

**April 21:** Neil Brown, Woods Hole Oceanographic Institution

Instrumentation & Measurement of Physical Properties

**April 28:** Dr. Burton Fabricand, Polytechnic Institute of Brooklyn

Chemical Oceanography

**May 5:** Dr. Bernard Harris, Ocean & Atmospheric Science, Inc.

Signal Processing in Acoustic Oceanographic Systems

**May 12:** Anthony Immarco, Consultant

Illuminated Range-Gated Television

**May 19:** Yuval Ofek, Hydrospace Electronics

Ocean and Laboratory Underwater Sound Measurements

**May 26:** Speaker to be announced

Instrumentation for Seismic Exploration

**IEEE Members - \$30.00; Student Members - \$5.00; Non-Members - \$35.00**

Send check, payable to Joint Chapter I&M, IEEE, to Mr. Daniel Cotte, RFL Industries, Inc., Powerville Road, Boonton, N. J. 07005.

**For further information:** In New York call Mr. Howard E. Lustig at (212) 932-1800. In New Jersey call Prof. Harlan J. Perlis at (201) 645-5492/5472.

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# A Seminar RECENT HIGHLIGHTS IN MICROWAVE ENGINEERING

DATE: THURSDAY, MAY 28, 1970  
PLACE: NEWARK COLLEGE OF ENGINEERING  
TIME: 1:00 P.M.—5:30 P.M.

## AGENDA

<i>Introduction</i> 1:00—1:10	<i>G. C. DiPiazza</i> <i>Chairman, GMTT/AP</i>
<i>Trends in Solid State Devices and Circuits</i> 1:10—1:50	<i>Dr. B. E. Berson</i> <i>Group Leader</i> <i>Solid State Devices—RCA</i>
<i>Acoustics and Microwaves</i> 1:50—2:30	<i>Dr. A. A. Oliner</i> <i>Chairman, Electrophysics Dept.</i> <i>Polytechnical Inst. of Brooklyn</i>
<i>Feed Forward Amplifiers</i> 2:30—3:10	<i>H. Seidel, Supervisor</i> <i>Solid State Device Studies Group</i> <i>Bell Telephone Laboratories</i>
<i>Coffee Break: 3:10—3:30</i>	
<i>Spacecraft Antennas</i> 3:30—4:10	<i>Dr. Leon Ricardi, Group Leader</i> <i>Antenna &amp; Site Group</i> <i>Lincoln Laboratory, MIT</i>
<i>Solid State Radar — Fact or Fancy</i> 4:10—4:50	<i>A. M. Briana, Manager, Technical Staff, Missile Systems Division</i> <i>Raytheon Company</i>
<i>Miniature Lumped Element Circulators</i> 4:50—5:30	<i>C. E. Barnes, Supervisor</i> <i>Microwave Ferrite Devices Group</i> <i>Bell Telephone Laboratories</i>

## REGISTRATION FEES

	ADVANCE REGISTRATION	LATE REGISTRATION
Members	\$ 6.00	\$ 8.00
Non-Members	8.00	10.00
Students	1.50	1.50

## ADVANCE REGISTRATION FORM — MICROWAVE SEMINAR

Send to: *Dr. C. P. Wu*  
*Bell Telephone Laboratories, Room 2B-222A*  
*Whippany, New Jersey 07981*

Name \_\_\_\_\_  
Technical Society \_\_\_\_\_  
Address \_\_\_\_\_

Check or Money Order Enclosed:

Member: \$ 6.00..... \$ 8.00 after May 15.....  
Non-Member: \$ 8.00..... \$ 10.00 after May 15.....  
Student: \$ 1.50.....

Please make check or money order payable to: North Jersey Section IEEE

## Electric Home Of the Future

The Power and Industrial Division will hold a General Meeting on Friday, April 17, 1970, at the Consolidated Edison Auditorium. The featured topic will be a talk by Mr. B. J. Kollenborn, P.E., the North East Region Construction Manager of the Westinghouse Electric Corporation. The talk will be entitled, "Home of the Future and Electric Living in the '70's."

Mr. Kollenborn will show slides and discuss the appearance of the home of the future, as well as, that of the new electric 1970 home. The home of the future develops the concepts of automatic metering, individual home sewage disposal, home recreation center, centralized security center (including fire and burglary), integrated communications center, and new lighting concepts.

This futuristic home is presently located in Coral Springs, Florida, a city built from scratch, and the largest 100% all electric city in the world.

*Time:* Friday, April 17, 6:30 P.M.

*Place:* Consolidated Edison Auditorium  
19th Floor, 4 Irving Place, New York City,  
New York

*Refreshments:* 6:00 P.M.—Wives and children are welcome.

## Tour To North Jersey Brewery Planned

The Power & Industrial Division, New York Section, is sponsoring an inspection tour of the Newark, N.J., facilities of Anheuser-Busch. Restricted to IEEE members only, the 2½ hour tour will include a movie and snack at the Rathskeller.

This tour has been well-attended in the past so early reservations are suggested. Tickets and directions can be obtained from William Patterson, Okonite Company, 1114 Clifton Avenue, Clifton, N.J. 07013.

All requests must be received by April 10, 1970 and only those accompanied by a stamped, self-addressed envelope will be acknowledged and honored.

*Time:* Wednesday, April 22; 7:00 P.M.

*Place:* Anheuser-Busch Brewery, Routes 1 and 9, Newark, N. J.



## Transit & Computers: Control & Engineering

The April meeting of the North Jersey Automatic Controls Group will feature a talk by Mr. Mayer Horn of Gibbs and Hill, Inc., on the topic of Transit and the Computer.

Mr. Mayer Horn will discuss automation of rail transit operations distinguishing between vehicular control and system control, including possible syntheses. Future applications of control computers to transit systems, including real time scheduling of bus systems, will also be presented. In addition, Mr. Horn will describe uses of computers in transportation planning—both demand prediction and evaluation of supply alternatives, in facility design and in the validation of design concepts and parametric analyses. Tools such as vehicle simulation, computer plotting, and system simulation will be discussed.

### About the Speaker

Mayer Horn is a Supervising Engineer—Transportation with Gibbs & Hill, Inc., Consulting Engineers, New York City, where he is presently responsible for the operations design of the train control systems for the fully-automated, computer-controlled rail rapid transit system in the National Capital Region, for which ground was broken in December. He received a Bachelor's degree in civil engineering from The Cooper Union in 1962, a Master's degree in civil engineering from Massachusetts Institute of Technology in 1964, and a Master's in business administration in 1968 from the City College of the City University of New York. Mr. Horn joined Gibbs & Hill in 1966 after having been an engineer for the New York City Transit Authority and a Research Engineer and Research Assistant at MIT. A licensed Professional Engineer in New York, Mr. Horn holds memberships in the American Society of Civil Engineers, and the American Railway Engineering Association.

*Time:* Wednesday, April 29, 8:00 P.M.

*Place:* Auditorium, ITT, Nutley, N. J.

*Pre-Meeting Dinner:* 6:00 P.M., Copper Hood Restaurant, Lyndhurst, N.J. (Just off Route No. 3)

*For Additional Information, contact:* Professor Joseph J. Strano, Newark College of Engineering, 323 High Street, Newark, N.J. 07102. (201) 645-5472.

## Distribution Voltage Regulators

"Distribution Voltage Regulators" will be the topic for the April meeting of the Transmission and Distribution Group. Speakers for the evening will come from Orange & Rockland Utilities, Jersey Central Power & Light Co., and Consolidated Edison; the Moderator will be from Public Service Electric & Gas Co.

The following will be discussed: present

day practices in the use of regulators; whether capacitors and substation transformer load tap changers have made them obsolescent; their possible use on secondary systems and on underground, which has inherently higher capacity.

*Time:* Wednesday, April 15; 6:30 P.M.-8:30 P.M.

*Place:* Union Carbide Corporation, 3rd Floor Meeting Room, 270 Park Ave., N.Y.C.

## North Jersey Award Winners

Two North Jersey Fellows of the IEEE were honored at the February 1970 Awards Dinner by becoming recipients of the North Jersey Distinguished Service Award.

The award consists of a bronze plaque to be presented at the Annual Section Dinner. Unlike most IEEE International and Local awards, this award is not presented on an annual basis, but rather only when a North Jersey Member of Fellow has demonstrated consistently outstanding service to the Section.

LAWRENCE J. LUNAS  
(M'27-SM'36-F'57-LF'62)

"For Distinguished Service to the Section"

Mr. Lunas is Advisory Engineer, Relay-Instrument Division, Westinghouse Electric Corporation, 95 Orange Street, Newark, N.J. 07101. He holds the B.S. degree from the University of North Dakota, 1926; the M.S. degree from the University of Pittsburgh, 1939; and the E.E. degree from the University of North Dakota, 1941. His IEEE Fellow Award was "For his contributions in the field of design and development of electrical instruments." He was also elected to Sigma Xi and Sigma Tau.

Back in the 30's, Larry was active in the New York Section, AIEE, becoming chairman of the Related Activities Committee in 1934. Then in the late 30's when Murray Skinner and Walter Barrett formed the New Jersey Division of AIEE, Larry changed his allegiance, and right after World War II, served as Chairman of the New Jersey Division.

Larry retained his connections with the New Jersey Division, and when the IRE-AIEE consolidation took place, he continued as a Member of the North Jersey Section, IEEE, becoming Chairman of the Awards Committee 1966-67.

In National Institute affairs, Larry served as Chairman of the Indicating and Integrating Instruments Committee in 1948, this Committee now being known as the Professional Group on

Instrumentation and Measurement (G-9). For many years he has taken a leading part in standardization of instruments, and is the present Chairman of Committee C-39 of the American National Standards Institute. Larry is also active in the International Electrotechnical Commission (Geneva); having attended a meeting on instrument safety in Vienna, 1969; and will attend a meeting on standardization of instrument dimensions in Stockholm in 1970.

The North Jersey Section, IEEE, is proud to recognize Mr. Lunas and present him with this plaque for distinguished service to the Section.

E. KENNETH VAN TASSEL

is, in addition, to be honored as a 1970 Fellow, the Recipient of one of the North Jersey Section Awards, 1970. "For Distinguished Service to the Section."

Mr. Van Tassel is a native of PawPaw, Michigan, and received his B.S. and M.S. degrees in Physics from Michigan State University in 1926 and 1928 respectively. His IEEE Fellow Award was "For contributions to telephone transmission, radar circuitry and applications of digital techniques to data processing."

Mr. Van Tassel joined Bell Telephone Laboratories in 1928, and served as an instructor in the Technical Assistants' Course for two years. In 1930, he became engaged in the design and development of carrier telephone systems and in the application of carrier transmission to telephone cable. During World War II he was concerned with the development and testing of early warning search radar equipment. Following the War he supervised development work on military data processing systems.

Author of a number of technical papers, Mr. Van Tassel holds 7 patents.

At the time of his retirement, in 1968, he was head of the Data Processing System Control Department at Bell Telephone Laboratories in Whippany, N.J.

The North Jersey Section, IEEE, is proud to recognize Mr. Van Tassel and present him with this plaque for distinguished service to the Section.

# Financial Aspects of Management

Whether you are concerned with more recognition from higher management or reviewing what you learned years ago, here is a course that has been specifically designed to be of practical value to you.

## Course Details

The "Financial Aspects of Management" are covered in five weekly 2-hour sessions. These include lectures, text book, visual aids, practice sessions and the exchange of views. Material will be discussed which is basic to the practices of any company. Illustrative and workshop examples are drawn from different types of industries (commercial, defense oriented, etc.).

The course, given by a distinguished consultant in the field, C. Richard Gunzer, is sponsored by the Metropolitan Chapter of the Engineering Management Group and the Department of Industrial Management, PIB. Classes will meet from 7:00 to 9:00 P.M. at the Long Island Graduate Center of the Polytechnic Institute of Brooklyn in Farmingdale, Long Island. Sessions will be held each Monday *starting April 20 and ending May 18, 1970.*

## Course Outline

Session 1: Essentials of financial statements: income statements and balance sheets. Explanation of income and expenses, assets, liabilities and equities.

Session 2: Evaluation of risk, profitability and potential of a business. Utilization of common measures, such as ratio analysis. The nature and objectives of cost accounting. Application of various methods used in ascertaining costs.

Session 3: Cost - Volume - Profit relationships. Techniques for analyzing fixed and variable costs for pricing decisions.

Session 4: Profit planning with budgetary control. Preparation and integration of departmental budgets for the accomplishment of company objectives.

Session 5: Cost analysis for managerial decisions. Employment of the factors studies in previous lectures to determine the optimum course of action.

**Registration:** The fee for IEEE members and alumni of Polytechnic Institute is \$35.00 and \$40.00 for others. These fees cover tuition, text book and lecture notes.

**The Speaker:** Mr. C. R. Gunzer brings to this course a wealth of industrial experience in conjunction with teaching ability. Since 1951, he has specialized in consulting on financial and cost problems for industry. Prior to private professional practice, he served in an executive financial capacity with Republic Aviation and Curtiss Wright. He is also the author of "Reasonable Executive Compensation" and other books and technical articles. Mr. Gunzer is a Certified Public Accountant and a member of several professional accounting associations.

**Additional Information:** If you have any questions please call Jack Vaughan, Grumman Aircraft (516) 575-1535.

## I & M Group Plans Field Trip to Indian Point

The Instrumentation & Measurement Group will sponsor a field trip to the Indian Point Atomic Power Plant at Buchanan, New York on May 16 at 10:00 A.M.

Indian Point is one of four big new electric power plants built by Con Edison in the past 15 years to meet the growing energy needs of the New York City-Westchester County Area. The plant, completed in 1962, is now operating at full capacity and can generate 275,000 KW of electricity.

### About the Tour

The tour will start at the Observation Deck with a presentation by plant engineers concerning all phases of plant operation with particular emphasis being placed on plant instrumentation.

A "behind-the-scene" tour of the Indian Point facilities will follow the presentation where Instrument applications and installations will be seen in operation.

The nature of this tour makes it necessary to limit the attendance to the first 50 registrants. So fill out and mail the registration form early.

### How to Get There

Driving from New York City, allow 1 hour and 20 minutes. Come north on Route 9 to Welcher Ave. Exit. Take that exit and turn west (left) onto Welcher Ave. to the first traffic light--that's Route 9A. Turn south (left) on Route 9A for about 1/2 mile and you will see the orange and blue Indian Point sign. Follow the sign (it directs you west on Bleakley Avenue) for about 1 mile to Indian Point. Once inside the gate, signs point the way to the Observation Building.

Mail to: *H. Otzmann*  
*c/o Westinghouse Elec. Corp.*  
*95 Orange St.*  
*Newark, N. J. 07101*

Please save a place for

-----  
*Name*

-----  
*Company affiliation*

at the May 16, 1970 Field Trip to the Indian Point Power Plant.

## REGISTRATION FORM—"FINANCIAL ASPECTS OF MANAGEMENT"

Name \_\_\_\_\_ Position \_\_\_\_\_

Firm \_\_\_\_\_ Phone No. \_\_\_\_\_

Business Address \_\_\_\_\_

Indicate with a check mark:      IEEE Member      PIB Alumnus

NOTE: Make check payable to "Metropolitan Chapter — EMG". Mail to Stanley Kramer, 14 Thunderbird Drive, Oakland, N.J. 07436.



## COLOR TV – PRINCIPLES AND SERVICING

The Communication Technology Group, IEEE New York Section, presents its Spring 1970 Lecture Series on a topic of interest to every owner of a color television receiver and anyone contemplating buying or building a color set. The object of this seven lecture series is twofold: first to acquaint the audience with the transmission and reception of the color signal and secondly to emphasize basic and specialized servicing techniques of color receivers. The courses are designed to appeal to engineers as well as laymen, students and do-it-yourselfers. However, it must be pointed out that in view of the vast amount of material to be covered, a rudimentary knowledge of electronics is essential.

### April 8 – COLOR TV TRANSMISSION

Transmission of the color TV signals from the studio camera through station equipment to the broadcast antenna.

*Speaker: R. Butler, National Broadcasting Company, Inc.*

### April 15 – COLOR TV RECEPTION

Tracing of the color signal from the home antenna through the receiver with emphasis on the color circuitry.

*Speaker: W. I. Speiro, Sylvania Electrical Products*

### April 22 & 29 - RECEIVER ALIGNMENT, ADJUSTMENT AND COMPONENT REPLACEMENT

Topics covered from the standpoint of in-the-home maintenance with limited test equipment.

*Speaker: R. H. Niclas, RCA Service Company*

### May 6 – SELECTION AND USE OF TEST EQUIPMENT

Use of test equipment ranging from the simple VTVM to more sophisticated apparatus such as the signal and dotbar generators.

*Speaker: W. G. Kuster, RCA Service Company*

### May 13 – TROUBLE SHOOTING TECHNIQUES

Diagnosis of circuit troubles manifested by problems with the color picture.

*Speaker: W. G. Kuster, RCA Service Company*

### May 20 – PANEL DISCUSSION

A panel consisting of two or more of the speakers will answer various questions from the audience about specific problems encountered.

*Speakers: To be announced*

**TIME:** 6:30-8:30 P.M., Wednesday evenings starting April 8, 1970

**PLACE:** Auditorium at 32 Avenue of the Americas, New York, N. Y.

**FEE:** Members – \$15, Non-Members – \$20, Students – \$5.

Partial enrollment at \$5 per lecture will be accepted, space permitting.

**INFORMATION:** For additional information contact A. F. Karman, RCA Frequency Bureau, 60 Broad Street, Room 730, New York, N. Y. – (212) 586-3000, Ext. RR3002.

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### REGISTRATION FORM—COLOR TV – PRINCIPLES AND SERVICING

Send to: *Mr. J. N. Rice, American Telephone & Telegraph Company,  
195 Broadway, Room 1131-B, New York, N. Y. 10007*

Name \_\_\_\_\_

Firm \_\_\_\_\_ Position \_\_\_\_\_

Business Address \_\_\_\_\_ Phone \_\_\_\_\_

Home Address \_\_\_\_\_ Phone \_\_\_\_\_

Check or money order enclosed:

Member: \$15.00..... Non-Member: \$20.00..... Student: \$5.00.....

Partial enrollment (circle those desired) Lecture 1 2 3&4 5 6 7 \$5.00 Per Lecture.....

Please make check or money order payable to: Communication Technology Group, N. Y. Section IEEE

# Instrumentation For Air Pollution Control

An evening meeting on "Air Pollution Control Instrumentation" will be presented by the Joint Chapter on Instrumentation and Measurement on Tuesday, April 7, 1970.

The speaker will be Dr. Edward F. Ferrand, Director-Bureau of Technical Services, New York City Department of Air Resources, Environmental Protection Administration. Dr. Ferrand will discuss the aerometric network operated by the City of New York. Emphasis will be on the instrumentation used by the Bureau and on principles of operation. The need for improved equipment in the air pollution field will also be covered.

A guided tour through the facilities of the Control Center will follow the talk.

Because of limited capacity, please notify Mr. John J. Dietz, Thomas A. Edison Industries, 51 Lakeside Avenue, West Orange, N. J. 07052. Phone: (201) 736-1000, Ext. 571.

*Time:* Tuesday, April 7, 6:30 P.M.

*Place:* Room 21E, Engineering Building, Cooper Union, 51 Astor Place, N.Y.C.

## Report from the: Group Coordinator

Just as there are many Professional Groups within the IEEE, so also there are many Chapters of these Professional Groups within the North Jersey Section. These Chapters promote the exchange of technical information concerning their special areas of interest particularly among the membership of the North Jersey Section. For those who might not be aware of these activities, the currently active Chapters together with their membership figures and the names and addresses of their Chairmen are listed below:

**G-3/17 Antennas and Propagation/Microwave Theory and Techniques**  
Membership—120/261 = 381  
*Mr. G. C. DiPiazza (201) 386-6050*  
*Bell Telephone Laboratories*  
*Whippany, New Jersey 07981*

**G-7 Reliability**  
Membership—106  
*Mr. George Ebel (201) 226-7777*

*Conrac Corporation*  
*Fairfield, New Jersey 07006*

**G-16 Computer**  
Membership—524  
*Mr. Richard Shively (201) 386-4715*  
*Bell Telephone Laboratories*  
*Whippany, New Jersey 07981*

**G-19 Communications Technology**  
Membership—357  
*Mr. J. F. Kampschoer (201) 386-4135*  
*Bell Telephone Laboratories*  
*Whippany, New Jersey 07981*

**G-23 Automatic Control**  
Membership—191  
*Mr. Edgar W. Van Winkle*  
*(201) 939-8304*  
*434 Edgewood Road*  
*Rutherford, New Jersey 07070*

**G-31 Power**  
Membership—390  
*Mr. Rudolph Stys*  
*(201) 622-7000, Ext. 3766*  
*Public Service Electric and Gas Co.*  
*10 Commerce Street*  
*Newark, New Jersey 07101*

The following Multi-Group Chapter is currently being organized.

**G-5/18/29/35 Nuclear Science, Engineering in Medicine and Biology, Geoscience Electronics, Systems Science and Cybernetics**  
Membership—56/144/34/143 = 377  
*Dr. Carl Kuehne*  
*Cybersystems, Inc.*  
*65 Mountain Avenue*  
*Warren, New Jersey 07060*

In addition to the above, the North Jersey Section jointly sponsors the following Chapters with the New York, Long Island, and Princeton Sections.

**G-6 Vehicular Technology**  
Membership—N.J. 36, N.Y. 81, L.I. 55  
Total = 199  
*Mr. H. Bailey (212) 986-4410, Ext 243*  
*Glen Avenue, Llewellyn Park*  
*West Orange, New Jersey 07052*

**G-9 Instrumentation & Measurement**  
Membership—N.J. 178, N.Y. 180, L.I. 106 = 464  
*Mr. Harlan J. Perlis (201) 645-5492*  
*Newark College of Engineering*

*Newark, New Jersey 07102*

**G-10 Aerospace and Electronic Systems**  
Membership—N.J. 275, N.Y. 282 = 557  
*Mr. Myron Rosenthal*  
*(201) 256-4000, Ext. 875*  
*Singer General Precision*  
*150 Totowa Road*  
*Wayne, New Jersey 07470*

**G-12 Information Theory**  
Membership—N.J. 153, N.Y. 227, L.I. 139 = 519  
*Mr. Ira Langenthal (516) 234-5700*  
*21 Heather Crescent*  
*Commack, New York 11725*

**G-14 Engineering Management**  
Membership—N.J. 230, N.Y. 274, L.I. 202 = 706  
*Mr. James P. Leonard*  
*209-07 38th Avenue*  
*Bayside, New York 11361*

**G-15 Electron Devices**  
Membership—N.J. 318, N.Y. 376, L.I. 198 = 892  
*Mr. Roger Edwards (201) 582-2710*  
*Bell Telephone Laboratories*  
*Murray Hill*  
*New Providence, New Jersey 07974*

**G-18 Engineering in Medicine and Biology**  
Membership—N.J. 140, N.Y. 356, L.I. 115, P. 50 = 661  
*Dr. M. M. Droseman*  
*(516) 626-3400, Ext. 295*  
*50 Kenilworth Pl.*  
*Brooklyn, New York 11210*

**G-21 Parts, Material and Packaging**  
Membership—N.J. 86, N.Y. 77, L. I. 77  
Total 240  
*Mr. J. M. Rausch (201) 386-3383*  
*Bell Telephone Laboratories*  
*Whippany, New Jersey 07981*

**G-27 Electromagnetic Compatibility**  
Membership—N.J. 50, N.Y. 61, L.I. 65  
Total 176  
*Mr. R. H. Brook (516) 595-3105*  
*9 Ruey Place*  
*Plainview, Hicksville, New York 11803*

If you would like to participate in the activities of any of the above Chapters, watch the NEWSLETTER for meeting announcements, contact the appropriate chairman, or call your Group Coordinator, John H. Gerth, (201) 386-4191.



## Corona In Components Subject of Parts Meeting

The May meeting of the Metropolitan Group PMP (Parts, Materials and Packaging) will study Corona and its problems related to parts, materials and packaging.

The topics to be discussed at the May meeting include the following:

"Effects of Corona in Insulating Materials"—Murray Olyphant—3 M Co.

"The Physical Nature of Corona"—H. Feilius — Bell Telephone Labs

"Measurement of Corona"—O. X. Heinrich — The Biddle Co.

"Packaging of Corona Free Devices"—D. M. Lisbin — Norden Division of United Aircraft.

**Time:** Wednesday, May 6, 10:00 P.M.

**Place:** AT&T Long Lines Building, Main Floor Auditorium, 32 Avenue of the Americas, New York City, N. Y.

## Annual Student Paper Contest

Each year, the Metropolitan Student Council of the IEEE sponsors a Student Prize Paper Contest, which is supported jointly by the North Jersey, New York, and Long Island Sections of the IEEE. This year's contest will be held on Saturday, April 25, 1970, at the Becton Hall Auditorium of Fairleigh Dickinson University, Teaneck Campus, and will be the central feature of Student Activities Day.

The contest prizes are:

*First Prize* ..... \$200

*Second Prize*..... \$100

*Third Prize* ..... \$ 75

*Fourth Prize* ..... \$ 50

In addition, the best paper from each school belonging to the Metropolitan Student Council is eligible for a \$25 Chapter prize.

The paper receiving First Prize is automatically eligible for submission to the Region I Regional Student Paper Contest, and the First and Second place winners of that contest are eligible for the Institute-wide IEEE Student Prize Paper Award. In the past, the Student Paper receiving First Prize in the Metropolitan Student Council contest also won the Institute Student Prize Paper Award for 1963, 1964, 1965, 1967, and 1969.

The Secretary for the 1970 Paper Contest is Mr. Eugene I. Weitz, American Elec-

tric Power Service Corp., Room 1076, 2 Broadway, New York City, New York 10004, (212) 422-4800, Ext. 409.

All schools in the New York, North Jersey, and Long Island Sections of the IEEE with Student or Student Associate Branches of the IEEE are eligible.

Dr. Ernest Wantuch, the Branch Counselor at Fairleigh Dickinson University is responsible for the arrangements. The Metropolitan Student Council, which organizes the publicity, may handle other arrangements by agreement with school representatives.

### PROGRAM

**12:00-1:00** *Registration in Becton Hall Auditorium*

**1:00** *Opening Remarks*

**1:00-2:15** *Presentation of Student Papers*

**2:15-2:45** *Recess*

*Coffee and Cake*

*Becton Snack Bar*

**2:45-4:00** *Final Reading of Papers*

**4:00-6:00** *Intermission in*

*Student Commons*

*Slide Presentation*

*Campus Tours*

*IEEE Films*

**6:00-8:00** *Dinner and Post-Dinner*

*Presentations in Faculty*

*Lounge*

*Menu: Fruit Cup, Roast*

*Beef Dinner, Pie-a-la-mode,*

*Beverage*

The diversions between the readings of the papers and the decision of the judges will be tours of the campus, use of the game room and slides of Dr. Wantuch's latest safari down the Amazon. The dinner will be roast beef and a nominal fee of one dollar will be charged for the day.

Dinner tickets are available at all MSC Branches. Please make reservations no later than Friday, April 27, with Bob Asdal, Chairman F.D.U. IEEE (692-1186); however, at-door registration will be accepted.

The Student Center will be open throughout the afternoon for those wishing to retreat from the paper presentation or to relax during intermission. Available within the building for the two hour break will be a game room with pin ball machines, pool tables, ping pong tables, movie room, Snack Bar, and a Lounge. All tours of the campus will originate from here also.

The Library will be open throughout the day with several reading rooms and periodicals room available; it will, of course, be part of the campus tours.

Dinner will be served at the Faculty Lounge and the presentation of awards will also be in this building.

## Student Meeting



A Dinner meeting of the IEEE MSC was held Saturday, February 7, 1970, at Luchow's.

The first order of business was Student Activity Day and the Prize Paper Contest. There was a discussion of the facilities and program at Fairleigh Dickinson University.

The date of Student Activity Day is Saturday, April 25, 1970. Registration will be at 12:00 noon.

The inactivity of certain schools was pointed out. George Chang of Manhattan College volunteered to head a committee to personally contact these schools and to report at the next meeting. Bob Loftus suggested that in the future we choose one of these schools and have a meeting there to get it involved.

The delegates are asked to bring information about their Campus Day or Professional Day concerning Electrical Engineering, perhaps even a printed program, if such is available. The exchange of information is an important part of the MSC.





The IEEE

# Newsletter

The Magazine of the North Jersey Section

**Metropolitan Student Council  
Annual Student Paper Contest**  
Fairleigh Dickinson University, Teaneck  
Saturday, April 25, 10:00 A.M.