

NORTH JERSEY SECTION AND COMPUTER GROUP JOINT MEETING AND SECTION ELECTIONS

Engineers: Why the Shortage

FRIDAY, MAY 17 — 8:00 P. M.

ARNOLD AUDITORIUM — MURRAY HILL

See Page 4



The IEEE

Newsletter

The Magazine of the North Jersey Section

The First Meeting of the Interim Chapter
on

Antennas and Propagation

Under the Sponsorship of the North Jersey Chapter on MTT

Time: 8:00 P.M.

Date: May 15, 1968

See Page 8

NORTH JERSEY SECTION FIFTH ANNUAL SECTION DINNER-MEETING

Thursday, June 13
Cocktail Hour 5:30 P.M.

ROBIN HOOD INN, CLIFTON

See Page 2

NOMINEES FOR SECTION OFFICERS

Chairman

Joseph G. O'Grady



holds the position of Assistant Laboratory Engineer at the Maplewood Testing Laboratory of the Public Service Electric and Gas Company. He joined the company in 1948 and has held various positions in the Electrical Division of the Laboratory until 1964 when he was appointed to his present position. He is a graduate of the College of Engineering of New York University where he received a B.E.E. Degree in 1954; he is also a former member of the instructing staff of the Special Courses Division of the Newark College of Engineering.

He has been a member of the Section Executive Committee for several years, having been Chairman of both the Section Program Committee and the Publicity Committee. In 1965, he was elected Section Secretary, 1966 Section Treasurer and he is presently serving as Section Vice Chairman.

Mr. O'Grady is a senior member of both the Institute of Electrical and Electronics Engineers and the Instrument Society of America, and he also represents his company as a sustaining member to the National Association of Corrosion Engineers.

He resides at 11 Bowling Drive, Livingston, New Jersey, with his wife, Muriel, and their three sons — John, Brian and Peter.

Vice Chairman

Merle M. Irvine



is head of the Weapon System Program Design Department of the Bell Telephone Laboratories at Whippany, New Jersey. Since 1955, when he started with Bell Labs., he has worked on Defense projects. These included Airborne Bombing and Navigational Systems; system design of a Radar Data Processing System; and the Data Processing System for Nike Zeus and Nike-X.

Mr. Irvine was active for several years on the Program Committee of the North Jersey Section, including one year as secretary and one as chairman. Currently he is Treasurer of the Section.

He received his B.S. in Engineering Physics from Montana State College in 1950; his graduate work was in Physics at Lehigh University; there he received his M.S. in 1952 and his Ph.D. in 1955.

Mr. Irvine is a member of: American Physical Society, Society of the Sigma Xi, Association for Computing Machinery, and Vice President of the Morris County Engineer's Club. He also is listed in the American Men of Science.

Treasurer

H. E. Blaicher, Jr.



was graduated from the Pennsylvania State University in 1949 with a degree of B.S. in Electrical Engineering. Following graduation he entered the cadet engineer training course of Jersey Central Power & Light Company. Since then he has worked in various assignments in distribution engineering, system planning and in engineering computer applications. He is presently Distribution Planning Engineer for Jersey Central Power & Light Company and its sister company, New Jersey Power and Light.

Mr. Blaicher served on active duty with the U. S. Army from 1943 to 1946.

Mr. Blaicher is a senior member in IEEE and has served as chairman of the Education Committee during the 1961-62 season, as an IEEE representative on the New Jersey Engineer's Committee for student guidance, and as chairman of the Power Group Chapter in North Jersey Section, IEEE during the 1964-65 season. He is presently Secretary of the North Jersey Section.

Mr. Blaicher lives at 45 Ferncliff Road, Morris Plains, where he and his wife are active in community affairs.

Secretary

Robert G. Sokalski



is at present Development Engineer on electronic test and measurement equipment for the Hewlett-Packard Co., at Rockaway, N. J.

He is presently Member at Large of the North Jersey Section. Previously he was Secretary, Vice-Chairman and Chairman of the North Jersey Automatic Control Group, in successive years.

Mr. Sokalski received his B.S. from Stevens Institute of Technology in 1962 and an M.S. from NCE in 1967.

Member-at-Large

Harry R. Clark



received his BSEE degree in 1951 from Newark College of Engineering. He has been with ITT since 1959 and is a Section Head in the Switching Dept. of the ITT Defense Communications Division.

Mr. Clark has been active in IEEE Group activities. He helped form the North Jersey Chapter of the IEEE Computer Group. In the past, he has served

as Secretary and Chapter Chairman of the North Jersey Chapter and as Publicity Chairman for the Metropolitan Chapter.

Member-at-Large

Carl C. Torell



is Manager, Utility Sales, Newark District of the Federal Pacific Electric Company. His experience has been primarily in the field of Sales Engineering. Previously, he was with the Pacific Electric and Manufacturing Co., a forerunner of Federal Pacific and with the Westinghouse Electric and Manufacturing Co.

Mr. Torell graduated from the University of Michigan in 1931 with a B.S. in Mechanical Engineering. He was elected to Tau Bet Pi.

He is a Senior Member of the IEEE. He served as Vice Chairman and Chairman of the Power Chapter and is at present Member-at-Large of the North Jersey Section. Prior to the merger, he was active in the AIEE. He served on the Educational Committee and was Vice-Chairman of the Related Activities Committee of the New York Section. Also, he was past Chairman of the Related Activities Committee of the New Jersey Division of the New York Section.

North Jersey Section

ANNUAL DINNER

The Annual Dinner will be at the Robin Hood Inn, Clifton, on Thursday, June 13, 1968. The usual "Dutch Treat" cocktail hour and social hour will be held 5:30 P.M. This will be followed by a combination family style ham and chicken dinner at 6:30 P.M. Dinner tickets will cost \$4.50 each. Non-members including wives are welcome.

RESERVATION COUPON

Mr. Thomas J. Comerford
Public Service Elec. & Gas Co.
90 Park Place — Room 237
Newark, New Jersey 07101

Enclosed please find my check (or money order) made payable to the North Jersey Section IEEE in the amount of \$_____ (\$4.50 each) for _____ tickets for the 1968 Annual Dinner, Thursday, June 13th. Enclosed also is a stamped, self-addressed envelope to expedite return of the tickets to me. If reservation coupon is received after June 8th, or without self-addressed stamped envelope, tickets will be held at the door.

NAME _____
ADDRESS _____
No. _____ Street _____
City _____ State _____ Zip _____

The IEEE Newsletter

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Volume 14 May, 1968 No. 9

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ABOUT ADDRESS CHANGES

REPORT ALL ADDRESS CHANGES TO:
INSTITUTE OF ELECTRICAL AND ELECTRONICS
ENGINEERS INC., 345 EAST 47th STREET
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.

NEWSLETTER STAFF

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Business Manager M. M. Perugini
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Associate Editor Barry Janoff

NORTH JERSEY SECTION OFFICERS 1967-1968

Chairman Bernard Meyer
Vice Chairman Joseph G. O'Grady
Treasurer Merle M. Irvine
Secretary Herbert E. Blaicher, Jr.
Member-at-Large Robert G. Sokalski
Member-at-Large Carl C. Torell
Past Chairman Stephen A. Mallard

Executive Committee Meetings
at Verona Public Library
First Wednesday of Month
7:30 P.M.

1968

May 1 June 5

All IEEE Members Welcome

CALENDAR

Page

May 7 and 14

NEW YORK POWER AND INDUSTRIAL 3

9:00 A.M. — Dredging trip. Battery Park, N. Y. C.

Wednesday, May 8

STEVENS INSTITUTE OF TECHNOLOGY 7

12:30 P.M. — Annual Branch election meeting at Stevens Center.

Wednesday, May 15

NEW YORK POWER AND INDUSTRIAL 3

7:00 P.M. — Spring Get-together dinner, at the Armory, 33rd St. and Park Ave., N. Y. C.

NORTH JERSEY AUTOMATIC CONTROL 7

8:00 P.M. — Neo-Modern Control Theory. A new technique for nonlinear analysis. Bendix plant number one, Teterboro, N. J.

**NORTH JERSEY ANTENNAS
AND PROPOGATION** 8

8:00 P.M. — Quasi-Monochromatic Properties of receiving antennas. Arnold Auditorium, B.T.L., Murray Hill, N. J.

Thursday, May 16

NORTH JERSEY RELIABILITY 6

8:00 P.M. — Computer Assisted Management of Manufacturing. Kearfott plant #10, 150 Totowa Rd., Wayne, N. J.

Thursday, May 16

JOINT METROPOLITAN ELECTRON DEVICES 6

8:00 P.M.—Microwave Integrated Electronics comes of age. United Engineering Center, 345 E. 47th St., N. Y. C.

Friday, May 17

**NORTH JERSEY SECTION AND
COMPUTER GROUP** 4

SECTION ELECTIONS

8:00 P.M. — Engineers: Why the shortage? Arnold Auditorium, Bell Telephone Laboratories, Murray Hill, N. J.

Friday, May 31

NORTH JERSEY SECTION 6

6:00 P.M. — Baseball game — Mets vs. Cards at Shea Stadium.

Wednesday, June 5

NEW YORK SECTION IEEE 6

9:00 A.M. — Computer-aided design of integrated circuits. Stevens Institute of Technology.

Thursday, June 13

**NORTH JERSEY SECTION
ANNUAL DINNER** 2

6:30 P.M. — Robin Hood Inn.

Power and Industrial Division New York Section, IEEE Spring Get-together

Theme—Olympic Festival

Wednesday, May 15, 1968

Armory — 33rd Street & Park Ave.
Entrance on 33rd Street side

Price: \$5.75

Cocktails: 6:00 P.M.

Dinner: 7:00 P.M. followed by
Entertainment

Send requests for tickets with a self-addressed stamped envelope to:

Frank L. Farkas
Long Island Lighting Co.
175 East Old Country Road
Hicksville, N. Y. 11801

New York Power and Industrial Division Dredging Trip

Dates:

May 7 and May 14

Time:

9:00 A.M. to 4:00 P.M.

Location:

Battery Park, Manhattan

Reservations:

J. A. Mulligan
708 First Ave. (6th floor)
New York, N. Y. 10017

Please Note:

Due to the limited nature of the party size, all reservations will be on a first come—first served basis. Each request MUST INCLUDE a self-addressed stamped envelope for ticket return. Please indicate a date preference and include a telephone number for notification of any change of program.

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VIBRATION ANALYSIS

North Jersey Section and Computer Group Joint Meeting and Section Elections

ENGINEERS: WHY THE SHORTAGE?

Date:

Friday, May 17, 1968

Place:

Arnold Auditorium
Bell Telephone Laboratories, Inc.
Murray Hill, New Jersey

Time:

8:00 P.M.

Pre-Meeting Dinner:

6:15 P.M.
Wally's Tavern, Watchung, New Jersey

Speakers & Topics:

"Supply and Demand Relationship for
Engineering Manpower"

Dr. William G. Torpey
Office of Emergency Planning
Executive Office of the President
"The Outlook for Employment Security
for Engineers"

Mr. Henry J. Andreas
Executive Secretary
Association of Scientists and Profes-
sional Engineering Personnel
(ASPEP)

"Recruiting Aspects"

Mr. Frederick M. Swope, Jr.
Vice President
Careers, Inc.

New York, New York
"Pensions"

Mr. George O. Ovitt
Insurance Consultant
New Jersey Society of Professional
Engineers
Trenton, N. J.

Moderator:

Mr. Bernard Meyer
Chairman
North Jersey Section of IEEE

Questions:

Why are there shortages of engineers
and layoffs of engineers during the same
period?

Why is engineering school enrollment
steadily decreasing?

How does job-hopping affect family
life?

Does society accept engineering as a
profession?

What retirement problems face the
engineer?

These are some of the questions that
engineers are raising about their pro-

fession. The speakers at this meeting
will explore some of these questions in
the hope that a meaningful dialogue will
develop.

Biographical Note:

Dr. William G. Torpey received his
BA and MA from N. Y. State College
for Teachers and his PhD from New
York University. He has been involved
in personnel activities for the U. S.
Navy; he has acted as Consultant to the
President's Committee on Scientists and
Engineers and to the Office of Civil and
Defense Mobilization, Executive Office of
the President. At present he is Man-
power Specialist, Office of Emergency
Planning, Executive Office of the Presi-
dent. He has also been on the faculty of
George Washington University for over
20 years.

Dr. Torpey will present an analysis of
recent studies relating to demands for
engineering manpower and on-supply
statistics in the light of current national
developments.

Mr. Henry J. Andreas has been active
in the labor field for a number of years.
He served on the Philadelphia Regional
War Labor Board and War Manpower
Commission during World War II. He
has lectured at the Institute of Manage-
ment and Labor Relations, Rutgers Uni-
versity for 20 years. He was Admin-
istrator and Education Director of a
large industrial union. He served as Ad-
ministrative and Labor Relations Con-
sultant to ASPEP before accepting his
present position as Executive Secretary.

Mr. Andreas will discuss whether em-
ployment security for engineers is a
problem as well as the factors influencing

such security. He will also touch on
other problems facing engineers in in-
dustry.

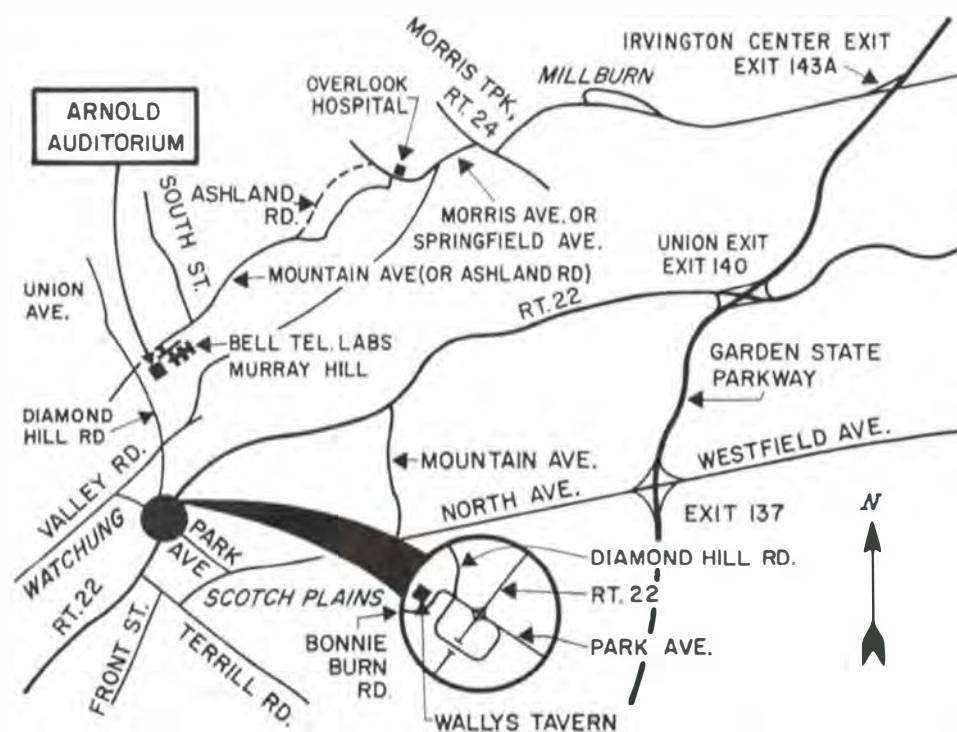
Mr. Frederick M. Swope, Jr., has been
involved in personnel activities as a re-
cruiter, manager and director for a num-
ber of large electronic companies and
corporations. In his present position as
Vice President, he heads the logistical
recruiting support of Careers, Inc., for
major electronic and aerospace corpora-
tions in the country.

Mr. Swope will discuss the practical
aspects of how the shortage of engineers
affects the recruiting effort, and what
is the effect of the changing demand for
engineers on that effort.

Mr. George O. Ovitt has had over 20
years experience in life insurance as a
special agent, district agent and general
agent. He is presently a general agent
for the Mutual Benefit Life Insurance
Co. He has served as pension-profit
sharing and estate planning advisor for
the Fuel Merchants Association of N. J.
and the New Jersey Lumberman Associa-
tion. Mr. Ovitt is the Insurance Con-
sultant for the N. J. Society of Profes-
sional Engineers, and originated their
extensive insurance program.

The major part of Mr. Ovitt's talk will
cover portable pensions. The remaining
part of his talk will present pensions
available to members of associations in-
surance program of the N. J. Society for
Professional Engineers.

Each speaker will talk for 12-15 min-
utes. No interruptions will be permitted
until all speakers have presented their
talks after which questions will be en-
tertained.



IEEE MEMBERSHIP

The Following Have Been Elected To Current Membership

John Abraham
Harvey R. Benson
Peter J. Burton
Sherman L. Davis
Carol A. Gardinier
Frank Derchia
Carl T. Etter, Jr.
Mark Friedman
Henry A. Frystak
Robert A. Gray
Wayne R. Hain
John P. Igielski
William J. Marcin
Earl C. McMahon
R. F. Moriarty
Thomas E. Morbelli
Joseph F. Petersack
Joseph J. Sachek
Sergio V. Selva
Paul R. Sottovia
Andrew A. Staroscik
Warren H. Turner
and in addition
Albzrelli, Michael L.
Alonge, Vincent B.
Asfour, Sami F.
Badia, Cristobal
Bartok, Andrew P. Jr.
Beauchamp, Ted M. 3rd
Becke, Hans W.
Bedford, Kenneth T.
Berg, George C.
Bertiger, Bary R.
Bess, Michael L.
Bialecki, Lawrence J.
Bober, Vincent E.
Bornmann, Robert E.
Bozzelli, Peter J.
Brander, Leon
Breen, Robert N.
Budzyn, Bernard R.
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Dawson, Kenneth R.
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Delgado, Fernando P.
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Eggermont, Raymond E.
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Feldman, Jerome
Fisher, Russell W.
Forbes, John B.
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Gilbert, Timothy J.
Gioia, Michael R.
Gore, Douglas A.
Glazier, David J.
Gomez, Louis R.
Gomm, Jack W.
Gonzalez, Xavier F.
Gorman, Gerald F.
Graham, William R.
Gramulgia, Thomas

Gray, Harold
Greenebaum, Jon M.
Hacker, Bruce D.
Hauck, George H.
Hess, James A.
Hoolko, Robert L.
Houser, Frederick N. Jr.
Hughes, Edwin E. Jr.
Hussels, B. H.
Huxster, R. G.
Jacobsen, Richard E.
Johnston, Ralph L.
Kellogg, Bruce M.
Kirzow, Robert
Kovalcik, John A.
Kramer, Stanley J.
Krusell, Peter K.
Kuesters, Eckhard M.
LaRoche, Eugene R.
LaMura, Gregory G.
Leone, Adelchi F.
Leopold, Martin L.
Levey, Alan
Lhommeidieu, Jesse H.
Ling, Charles C.
Lubash, John J. Jr.
Lukach, Gerald R.
MacMillan, Richard W.
Malanczuk, William T.
Maltz, Alan K.
Maquieira, George A.
March, Elliot
Masciola, R. J.
Matusiefsky, Matthew R.
McEwan, Jack R.
McGrath, James B.
Meth, Alvin
Miller, Douglas O.
Miller, Robert J.
Mirabella, August Jr.
Mollicone, John
Monsees, Wayne R.
Montag, Michael A.
Murphy, C. Joseph
Nacheber, Niconedi P. Jr.
Nelson, Bruce A.
Noon, Joseph F.
Omolesky, Mark F.
Ortland, Frederick W.
Papekh, Pratull M.
Parente, Ronald N.
Passeti, Joseph L.
Paterson, Alexander S.
Pawchak, Peter Jr.
Peoples, John T.
Pennotti, Michael C.
Petersen, Peter M.
Phillipuk, Victor
Pitt, Richard L.
Pokotilow, Steven B.
Prinz, Thomas W.
Pueraro, Ken P.
Randle, Anthony J.
Raskin, Howard S.
Reck, Daniel Y.
Raubold, Anthony J. Jr.
Rey, Oswaldo J.
Robli, Alfred R.
Rodriquez, F. D.
Rosett, Brian C.
Rusowicz, Chares P.
Saks, Steven L.
Sanco, Thomas W.
Santasieri, Michael A.
Schlosser, Richard L.
Schmidt, Arthur J.
Seidel, Thomas E.
Simons, H. D.
Smilios, Michael C.

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Laser Devices and Applications
Harold A. Wheeler and Engineering Staff
Main office:
Great Neck, N. Y. HUnter 2-7876
Antenna Laboratory: Smithtown, N. Y.

Snow, Robert V.
Spinelli, Louis A.
Stavroulakis, Peter
Steinert, Thomas M.
Steinis, George R.
Steinmetz, Bob J.
Stone, Dr. Gerald P.
Stryker, Charles W.
Sullivan, Robert J.
Thelin, Paul A.
Thoens, Allen C.
Thomas, Brian J.
Tretola, Angelo R.
Ugarte, George M.
Unger, Burton A.
Van Handle, Hank R.
Wagner, Walter E. Jr.
Walsh, John J.
Walters, Robert A.
Weinhold, Frederick J.
Weinstein, Harvey M.
Wilson, Robert J.
Wojcie, Michael D.
Wojslawowicz, Jack E.
Wood, J. A. (Pa)
Yaros, Richard M.
Younes, Adel E.
Young, Allan E.
Young, Peter P.
Zawitkowski, Robert J.
Zemlin, Gerald P.

The Following Due To Change In Address Are Now Members Of Our Section

E. L. Bishop, Jr.
P. F. Blattner, Jr.
John A. Bowles
M. L. Caminsky
James W. Carlin
John F. Coyne
H. P. Deede
Vincent Deltoro
Willie A. Faison, Jr.
Robert J. Felton
Frank Gegunde
Brian G. Gordon
M. M. Haertig
E. K. Kaprelian
Douglas E. Kustka
Harold Massie
Ralph L. McDowell
William Medweski
George B. Miller
John C. Newton, Jr.
P. O'Brien
G. T. Oppenheimer, Jr.
G. N. Protogeron
H. A. Reise
Larry A. Roark
Dr. J. G. Ruch
Theodore Schieber
Charles D. Seligson
Harris Shapiro
Thomas Skrabonja
Barry Soloway
Lewis J. Tanzos, Jr.
E. Della Torre
Charles W. P. Walter
Wing C. Wong



Vladimir G. Gelnovatch

Joint Metropolitan Electron Devices

Microwave Integrated Electronics Comes Of Age

Presented By:

Vladimir G. Gelnovatch
Electronic Components Laboratory
U.S. Army Electronics Command
Fort Monmouth, N. J.

Date and Time:

May 16, 1968 - Thursday - 8:00 P.M.

Place:

United Engineering Center
345 East 47th Street
New York, N. Y.

Pre-Meeting Dinner:

Copain Restaurant (6:00 P.M.)
First Avenue at 50th Street, New York,
N. Y.

Abstract:

The object of this presentation will be to basically examine the underlying properties of integrated microwave circuits and to present a tutorial state of the art review of their accomplishments.

The state of the art has progressed sufficiently to enable designers to fabricate X and Ku-band receivers applicable as retrofit front ends for existing Army manpack radar equipment and avionics airborne radar systems.

The design of these types of systems has been facilitated by computer analyzed and in some cases synthesized data. The net result is dramatic. Typical X-band front ends have been reduced to a 1" x 2" x 1/2" size. An obvious benefactor of this technology is the large phased array defense radar community where full impact of the advantages will be felt. In addition to the size and weight reduction, improved electrical performance is a major attribute of the integrated approach.

Biography:

Mr. Gelnovatch received his B.S. degree in Electronic Engineering from Monmouth College, West Long Branch, New Jersey, in 1963 and his M.S. degree in Electrical Engineering from New York University, New York, in 1966. Since 1963 he has been employed by the Electronic Components Laboratory,

U. S. Army Electronics Command, Fort Monmouth, New Jersey, engaged in the design and fabrication of microwave transistor amplifiers in the L-, S- and C-Band frequency range by computer techniques. Currently Mr. Gelnovatch is a section chief in the Integrated Circuits Branch where he is responsible for the overall research and development of microwave integrated devices and circuits. He is a member of the Institute of Electrical and Electronics Engineers, and the Professional Group of Microwave Theory and Technique.

NORTH JERSEY RELIABILITY

MEETING NOTICE

Subject:

Computer Assisted Management of Manufacturing Activities

Speaker:

James E. Gorman, Research Leader
Computer Hardware Studies
Western Electric Engineering Research Center
Princeton, New Jersey

When:

Thursday, May 16, 1968

Where:

Kearfott Systems Division
Aerospace Group — Plant #10
Auditorium
General Precision Systems Inc.
150 Totowa Road
Wayne, New Jersey

Time:

8:00 P.M.

Mr. Gorman will discuss new methods of analyzing shop data for use by management to control manufacturing processes. Jim holds both BS and MS degrees in electrical engineering from Bucknell University. He was employed by Bendix in York, Pennsylvania, from 1953-1955 and joined the Western Electric Company in 1957. He has been at the Princeton Research Center since 1961.

North Jersey Section

N. Y. Mets

vs.

St. Louis Cardinals

Everyone Invited —

Bring Your Friends

Friday Night—May 31, 1968

Game Time 8 P.M.

Price \$4.00 per ticket including transportation to and from Shea Stadium.

Buses will leave from Public Service terminal on East Park St.

at 6:00 P.M.

Please send request for tickets to:

Mr. R. J. Felton

Public Service Electric & Gas Co.

80 Park Place — Room 247

Newark, N. J. 07101

Orders will be filled on a

First Come — First Served Basis.

For additional information

call 622-7000 - Extension 2507

New York Section IEEE Stevens Institute of Technology

Fifth Annual

Integrated Circuit Seminar

THE COMPUTER-AIDED DESIGN OF INTEGRATED CIRCUITS

Last year's predictions of the impact of two technologies — computers and integrated circuits — on this fast-moving electronics industry, were easily surpassed. These two technologies are deeply inter-related. Were we too conservative in planning for their effect? If so, let us not repeat the mistake.

Today, the technical and economical demands being made of integrated circuit designers and producers make it a necessity to use computers in all areas of integrated circuit design and manufacture. As this interaction increases, the industry impact is greatly accelerated. To keep you abreast of these developments, six experts in this growing, vital field discuss fundamentals and applications. Discussion questions are invited from the audience.

Agenda

Registration (and coffee)

8:30 A.M. to 9:00 A.M.

Fundamentals

"Integrated Circuit Models for Computer-Aided Design"

Dr. G. J. Herskowitz, Stevens Institute of Technology, Hoboken, N. J.

"Computer-Optimized Model Determination"

Dr. J. J. Golembeski, Bell Telephone Laboratories, Murray Hill, N. J.

"Linear IC Analysis by Digital Computer"

Dr. M. Murray-Lasso, Bell Telephone Laboratories, Whippany, N. J.

Luncheon

Applications

"Thin-Film Amplifiers and Filters by Computer-Aided Design"

Dr. R. C. Levine, Stevens Institute of Technology, Hoboken, N. J.

"Designing Microwave Integrated Circuits with the Computer"

Dr. H. Brenner, Bell Telephone Laboratories, Murray Hill, N. J.

"Computer-Aided Design of Large Arrays of MOS Integrated Circuits"

R. E. Gould, Autonetics, Anaheim, California.

Sponsors

New Technical and Scientific Activities Committee

New York Section, IEEE

Stevens Institute of Technology

Registration

Advance registration fee for members of IEEE is \$25, for non-members \$30. At-the-door registration is \$5 additional. Registration fee includes luncheon and a copy of the McGraw-Hill text "Computer-Aided Integrated Circuit Design", to be issued at a later date.

Make checks payable to "IEEE Basic Sciences Committee" and remit to:

Konrad H. Fischer

U. S. Signal Corps, AMSEL-KL-IC

Fort Monmouth, N. J. 07703

Acknowledgements, including routes, will be mailed to all registrants.

ADVANCE REGISTRATION FORM
(at-the-door registration—\$5 additional)

To: Konrad H. Fischer

U. S. Signal Corps,

AMSEL-KL-IC,

Fort Monmouth, N. J. 07703

I (we) wish to register for the one-day seminar on the Computer-Aided Design of Integrated Circuits, to be held at Stevens Institute of Technology on June



Edgar W. Van Winkle

North Jersey — Automatic Control Neo-Modern Control Theory

Speaker:

Mr. Edgar W. Van Winkle, P.E., Assistant Senior Engineer, The Bendix Corporation, Navigation and Control Division

Place:

Bendix Plant #1, Teterboro, N. J.

Date:

Wednesday, May 15, 1968

Time:

8:00 P.M.

Pre-meeting supper:

6:15 P.M., provided by The Bendix Corporation at Plant #1. (Green St., South of Rt. #46). For your free supper reservations, please call the NNJ-GAC secretary, Mr. B. Lukaschewsky, at 201-796-5100 or 212-3970, extension 284.

Abstract:

A new technique for nonlinear analysis is developed, based on the Describing Function approach, to provide design data for Type 1 servomechanisms. The necessary equations are derived to generate a program which is used in the computer aided design of linear and saturation servomechanisms.

The technique, based on a new measure of performance, emphasizes a highly predictable procedure for nonlinear servomechanisms synthesis. The procedure, combined with normal linear techniques, provides a rapid and precise synthesis of saturating servomechanisms.

The practical applications of this technique for the past five years in analyzing and synthesizing the servo loops

EXECUTIVE COMMITTEE

FUNCTION OF THE EDUCATION COMMITTEE

It is the Education Committee's responsibility to organize and operate all lectures and courses sponsored by the Section other than the regularly monthly meetings. For those of you who have not attended any of our programs, they usually consist of about eight two-hour sessions covering a particular subject of interest. We have been very successful in securing instructors who are both excellent speakers and experts in their particular fields. The sessions are interesting, having a high bit density of information and affording a good opportunity to have detailed questions answered.

In the 1967-68 year the following Study Groups have been sponsored by the Education Committee:

1. Electric Power Distribution for Industrial Plants:

A ten session lecture series covering the principles and protective equipment used in planning, designing and operating electric power distribution systems for Industrial Plants.

2. Fortran Programming for Digital Computers:

A six session course to teach engineers and others to solve engineering problems on a digital computer.

3. Electric Underground Residential Distribution:

An eight session course covering various design, installation and operating criteria.

4. Elements of Nuclear Engineering:

A series of ten lectures designed for all engineers as a fundamental course in Nuclear Engineering using a semi-mathematical approach.

The courses in Fortran Programming and Nuclear Engineering were jointly sponsored with ASME. Total attendance for these four courses was 350.

The schedule for next Fall and Spring is now in the planning stage. Some of the topics under consideration include: Value Analysis, Speed Reading, Micro-electronics, Relay Systems, Microwave Systems, and Accounting for Engineers.

I cordially thank our hard-working staff, and invite all section members to join our Committee or to suggest subjects for future programs.

Clifford G. Engstrom, Chairman
Education Committee

in the Central Air Data Computers of the Bendix Corporation, Navigation and Control Division present conclusive evidence of its usefulness and its importance to the state-of-the-art nonlinear systems.

Biography:

Mr. Van Winkle has been concerned with the design of integrated air data computer systems. He has been active in the development of Solid State Circuits, Magnetic Amplifier Circuits, Servomechanism Design Techniques, and has been granted ten patents.

Mr. Van Winkle was a Consulting Engineer designing Naval Equipment for the Bureau of Ships just before joining the Bendix Navigation and Control Division staff.

Mr. Van Winkle is a Senior Member of the IEEE, a former member of AIEE, and the Society of American Military Engineers. He is a licensed Professional Engineer of the State of New Jersey, and is the author of several published engineering papers.

Mr. Van Winkle graduated from Rutgers with a BSEE degree, and has received both the MSIE degree and the Professional in Engineering IE degree from Columbia University.

Wednesday, May 8, in the Stevens Center. Refreshments will be served.

The 1968 Annual IEEE Convention was again very popular with the North Jersey Student Branch membership. In this regard a vote of thanks should be paid to the Electrical Engineering Departments of Fairleigh Dickinson University and the Newark College of Engineering for arranging time off from classes for all Electrical Engineering students wishing to attend the Convention and Exhibition.

Based on the response of N.C.E. students to the 1967 Convention, it is estimated that between 40 and 60 N.C.E. Electrical Engineering students may have applied for Student Membership at this year's Convention.

This year's student attendance at the convention was as follows:

On Tuesday, March 19, approximately two hundred N.C.E. Student Branch members and two hundred non-members visited the IEEE Convention in lieu of classes.

On Wednesday, March 20, the Stevens Tech Student Chapter sponsored an all-expense-paid trip to the Convention, taken advantage of by approximately twenty Branch members. Fairleigh Dickinson University's Convention contingent consisted of about thirty young men very pleased to get a day's freedom from classwork.

STUDENT NEWS

The Stevens Institute of Technology Branch will hold to its annual election on

**The First Meeting
North Jersey Antennas
and Propagation**

**"Quasi-
Monochromatic
Properties of
Receiving
Antennas"**

Date:

May 15, 1968

Time:

8:00 P.M.

Place:

Arnold Auditorium
Bell Telephone Laboratories, Inc.
Murray Hill, New Jersey

Speaker:

ROBERT E. COLLIN
Professor of Electrical Sciences
Case-Western Reserve University
Cleveland, Ohio

Professor Collin is the well known author of the books *Principles and Applications of Electromagnetic Waves* (co-authored with Professor Robert Plonsey), *Field Theory of Guided Waves*, *Fundamentals for Microwave Engineering*, and the editor of the forthcoming book *Advanced Antenna Theory*.

The received quasi-monochromatic signal is assumed to be both temporally and spatially incoherent. Applications to noise problems will be discussed.

Pre-Meeting Dinner:

Time:

6:00 P.M.

Place:

Wally's Tavern
Watchung, New Jersey

For more information including directions, please call Mr. Elliott R. Nagelberg, 201-386-3640. We would like to keep count of dinner attendees.

A brief discussion concerning the creation of the new North Jersey Chapter on Antennas and Propagation will precede the main talk.

Refreshments will be available after the meeting.

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Model 303-01: Line powered only, \$305

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1 kV 20 dB Probe, \$355

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