

# A Foot in the Door



Bob McMillan, Vice Chairman

You have access to more than just the IEEE. Your inputs may be channeled via the Intersociety Relations Committee to help influence the direction and destinies of other societies. The chairman of this committee meets several times a year with similar representatives from the other technical and professional societies.

Invited to these coordination meetings are representatives of: AACE, ASHRAE, ASM, SME, AIIE (4 chapters), IEEE (4 chapters), ASME (2 chapters), ITE, ASQC (3 chapters), SWE, NJSPE (13 chapters), AIPE, AIMMPE, ISA, ASSE, ASCE, AICHE, and AIAA. If you know of others, let us know and they will be invited. The coordinating media is the Interprofessional Relations Committee of the NJSPE and a set of objectives reached by the various societies for this group are:

- 1. Foster a closer relationship between the engineering societies.
- 2. Encourage the engineer to support the profession through his engineering societies.
- 3. Promote a favorable public image of the engineer and his profession, and
- 4. Develop, for the consideration by the technical and professional societies of New Jersey, common goals, interests and policies which by a united effort of the societies will benefit the engineer, the engineering profession and the general public.

Topics planned for discussion (1974-75) now include: Engineering Advice to Legislative and Executive Groups; Public Relations; Certification-What Is It? Where Do We Go With It?; Planning an Annual Meeting for Engineering Society Leaders, Information Exchange; and the (distant) possibility of an Engineering State Fair. Send your thoughts on topics to Bob McMillan, 171 Orange Rd., Montclair, N.J. 07042.

This committee is not the only "open door" to the future. The Social Economic Activities Committee will coordinate your requests for legislative action and other actions benefiting the engineer in this area. Naturally, there will be some overlap of coverage of the above committees. Address your socio-economic requests to Mr. Norman G. Hettinger, 8 Osborne Terrace, Pompton Plains, N.J. 07444.

If you are committed beyond the letter writing stage, you may want to serve on one of these committees. In this way you can influence both the input and the action. It is a safe prediction that without volunteer committee members, the output will be limited. The total number of North Jersey Section Officers, Committee Chairman and Chapter Chairman is less than 30. Many additional members are needed on the committees and some chapters need aides.

Two areas of influence within IEEE are the Newsletter and the new Young Engineer Committee. Potential members of the editorial staff should contact Mr. Ray Vaccari, 236 Summit Rd., Mountainside, N.J. 07092. Young engineers who would enjoy working with Mr. Charles Coulomb (you'll get a charge out of it!) should contact him at Jersey Central Power and Light Co., Punch Bowl Rd., Morristown, N.J. 07960.

You are now perceiving that YOU are the North Jersey Section and that you can call the shots, even to the extent of helping decide who the officers should be, not only by voting in the elections, but by submitting names (and convincing data) to the Nominations Chairman, Dr. Harlan Perlis, Newark College of Engineering, 323 High St., Newark, N.J. 07102. Submit names of candidates for members at large, or for any other officer positions that the experience of the candidate warrants. If any engineer has held the offices of secretary, treasurer and vice-chairman in this, or another section and was forced to move because of various circumstances, he might be eligible to run for chairman in this section. This could add the zest of competition for higher offices. It should be noted that the problem confronting the Nominations Chairman is the lack of candidates with office-holding experience. Please contact Dr. Perlis well before the end of the year 1974 for the 1975-76 slate!

The nominating committee is not the only path of nominations, since a petition signed by not fewer than 25 voting members of the section transmitted to the secretary for submission to the section Executive Committee prior to April 30 will result in a nomination. Practically speaking, for Newsletter ballot, this should be accomplished in January. A statement which certifies that if elected the nominee will serve must accompany any such petition.

What has been said emphasizes the one theme: This is YOUR section. You have many avenues to useful input. We need your help.

## **Annual Student Night**

The North Jersey Section of the Power Engineering Society will have its annual student night at Newark College of Engineering on Thursday, October 24. The program is entitled "The New Engineer in the Power Industry." As in past years, the program will consist of a panel of recent engineer graduates in the power industry. The panelists will outline various engineering challenges and career opportunities available in their chosen field.

All students and interested engineers are invited to attend. The evening will begin with a buffet dinner at 6:30 P.M. at the student center cafeteria; and the meeting will follow in the ballroom at 7:15

> Time: 6:30 P.M., Thursday, October 24, 1974

> Student Cafeteria, Place: Newark College of Engineering, Newark, N.J.

## **MTT Chapter Meeting**

At the North Jersey MTT Chapter meeting on October 31, "Broadband Optimization of Power Transistor Amplifiers Utilizing Automatic Load Contour Mapping" will be discussed by S. Perlow and B. Perlman of RCA Laboratories, Princeton, N.J.

The technique described is for large signal characterization of microwave power transistors. In it, computer-controlled apparatus is used to map contours of constant power and efficiency on a Smith Chart for dynamic matching of both input and output circuits. The power contours are used to optimize the design of broadband class A and class C power amplifiers.

For additional information, contact H. Veloric (609) 452-2700, Ext.

Time: 8:00 P.M., Thursday, October 31, 1974.

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

**Pre-Meeting Dinner:** Copperhead Restaurant on Park Ave. in Lindhurst (off Rt. 3) at 6:00 P.M.

### **Power Engineering**

The October meeting of the North Jersey Section of the Power Engineering Society will be a joint meeting with members of the Morris Subsection of the ASME. The program will be on "A Powerful Management Tool--SACCS".

Mr. Arthur Nilsen, manager of product control, equipment construction, at Foster Wheeler in Livingston, will be the feature

speaker. He will describe the computer management program "Scheduling and Cost Control System" (SACCS) which integrates schedules, costs and productivity requirements into diagnostic reports and job analysis. This fast-acting computer system compares plans to actuals through automatic diagnosis of both schedule and cost. SACCS has been described in "Power Magazine" and "Electrical World" and has been used successfully on various nuclear and fossil power plants as well as R & D programs.

Refreshments will be served following the meeting.

Time: 8:00 P.M., Wednesday, October 23, 1974.

Place: Punch Bowl Room, Jersey Central Power & Light Co., Madison Ave (Rt. 24) at Punchbowl Morristown, N.J.

## Welcome to 76 New Members of the **IEEE North Jersey** Section!

Felix T. Adelevi Andrew M. Mills Godwin A. Adelevi James W. Mitchel Vedb Arca Russle A. Balwah Mark Orouncy Kenneth S. Bates Richard S. Payne Terrence J. Begley Joseph C. Burger Michael E. Chirlo Young H. Chung Ken F. Cottone **Michael Davies Edward Der** 

Arakian Matthew C. Derendal Kevin W. Donnelly William T.

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Thomas A. Furhrman **Kyriakos** Georgallis

John A. Gibbons Wayne A. Goetz Ronald Gould Mark E. Heyman James F. Hubbard Alexander J. Jaworski

Richard P. Johnson Joseph Junio, Jr. William B

Karpinsky Douglas M. Kilgore Stanislaw Koiniuck Jerry J. Korb Gary F. Kozak Mike J. Lella Hung-Jen Li James F. Lutz John L. Mentz IV

Edward A. Nowak Paul J.

Przybylinski Stanley Pukash Robert E. Resh Martin L. Robertiello

Jorge W. Romero Murray Rosenbluth Paul I. Rubinfeld John T. Ryan Robert E. Savino Philip A. Scaglione Eugene R. Schegel Warren R. Schmidt Frederich E.

Schulze Richard M. Scorta Jorge G. Silveira John J. Sitarski, Jr. William A. Smith Thomas T. Stratton David L. Swartz Peter Tolpichin Peter J. Torrow Dominick Torrano Carl R. Turner William E. Vellner Earl D. Voss Gioran T. Wilkins James W. Witteschein

Richard J Wonneberger Edward G. Yakich Bruce J Yovich Ron A. Yovich

If you are a new member and your name is not on this list then it wasn't mis-spelled and you are lucky.

## Job Problems???

If you are an unemployed engineer or have a problem with maladjustment in your work which may require a change, there is a group of engineers in New York City with similar problems that you can contact for discussion on how to plan for change and how other engineers have solved and are solving similar problems.

The best first step in solving a problem is to talk it over with people who have been through it or are currently in the same situation. The Planning Studio provides that kind of environment. Call The Planning Studio, 595-3096 weekdays between 3-7 PM and get on the list for the next engineers group that is forming.

## **Field Trip to Mail Center**

The New York Section and the New York, North Jersey, and Long Island Joint Chapter Instrumen-Measurements tation and sponsoring a field trip to the New York Bulk and Foreign Mail Center in Jersey City, N.J., on October 23, 1974, 1:30 PM. The address of the Center is: 80 New Country Road, Jersey City, N.J.

This is the world's most modern bulk mail facility with computerized control used throughout the Center.

To register, send your name, firm, business address, and business phone # to: Mr. D. Roerty, Westinghouse Elec. Corp., 95 Orange St., Newark, N.J. 07101.

For further information: In New Jersey - Mr. Dennis Roerty (201) 465-2295 - In New York: Mr. David C. Roberts (212) 422-4800, ext. 8223.

## **Call for Papers**

Papers are being solicited on all aspects of radar systems and technology for presentation at the IEEE International Radar Conference to be held at Stouffer's National Center Inn in Arlington, Va., on April 21-23,

Papers should be submitted by November 15, 1974 for review by the Papers Committee. Accepted papers should be in final form, typed on special mats (to be provided) and in the hands of the committee by February 1, 1975 in order to appear in the published conference record. Published papers must not exceed 3,000 words and may contain up to six illustrations.

Authors should submit three copies of the complete paper to: Dr. Merrill I. Skolnik, Chairman, Papers Committee, Code 5305, Naval Research Laboratory, Washington, D.C. 20375.

#### **Expands Fellow Program**

Two Congressional Fellows have been selected by the IEEE for the year 1974-75. Dr. Willis Dean Smith and Mr. Lloyd B. Craine will serve in Washington for approximately one year. Last year the Institute began its Congressional Fellow program with the selection of Dr. Ronal Larson.

Congressional Fellows assigned to the staff of a Congressional Committee of a Senator or Congressman. Initially, the Fellows selected by IEEE and other engineering and scientific societies attend a special AAAS-Engineering Society indoctrination to prepare them for the assignments.

Dr. Smith is a technical staff member of Sandia Labs, Albuquerque, N.M. He earned his B.S. degree in Physics from Bradley University (Peoria, Ill.) and his M.S. and Ph.D. in Physics from Washington University (St. Louis, Mo.). Dr. Smith is listed in "American Men of Science" and was a Regional Finalist in the 1973 White House Fellow Program.

Mr. Craine is a Professor at Washington State University (Pullman, Wa.). He has taught there since 1956. Prior to this assignment, Mr. Craine also taught at the University of Idaho and Oregon State University. A Senior Member of IEEE, he is Chairman, Subcommittee on Information Storage and Retrieval, IEEE Wave Propagation Standards Committee, and Chairman, Working Group on Instrumentation and Measuring Techniques, IEEE Electromagnetic Compatibility Group. He earned his B.S., M.S., and E.E. degrees at Oregon State Univ.

## First Non-Technical Section Meeting

By Bob McMillan, Vice Chairman

This is your chance to learn, first hand, what your section is doing and plans to do in areas relating to non-technical needs of engineers. More important, you may have ideas that should also be implemented.

The meeting will be held at Arnold Auditorium, Bell Laboratories, Murray Hill, N.J. on Thursday, 17 October at 7:30 PM.

Some of the changes that are occurring you will have noticed, such as the new NEWSLETTER format, the attempting to bring feedback into the news, purchasing plans, etc. From the national level you should have received four issues of IEEE PROFESSIONAL NEWS to keep you abreast of the major new objective of the IEEE: to promote the advancement and standing of the members of the society.

This is just a beginning! A new Social Economics Committee in our section needs your input and, for many of you, your services to realize its potential in our section. This corresponds to the Professional Activities Committee (PAC) that 65-70 sections have appointed in the US. Funds are available for approved projects from the United States Activities Committee (USAC).

Your executive committee is moving to implement some of the possible improvements in our section. Greater participation by young engineers in the executive committee has started with two recent graduates heading up committees. Student participation will be pushed, including a few student reduced rate invitations to the annual dinner-dance (March 1, 1975 -Members: Plan to come!)

An ad hoc Young Engineers Committee has been formed and chaired. If this committee performs the useful function expected of it, steps will be taken to modify section by laws to include it as a standing committee.

The North Jersey Section will not only be responsible to worthy ideas along socio-economic lines, but are interested in your views to revitalize technical meetings and IEEE educational programs. Some proper balance of easy to understand tutorial sessions, talks for persons with some expertise. educational sessions to bridge the gap between college (then) and state-of-the-art (now) and improved technical papers may be the answer. May we have YOUR thoughts?

Many other potential new programs will be discussed at this October 17 meeting at Bell Labs.

The ideas for improvement may occasionally originate in the executive committee of the section, but most have come from an extensive interviewing of young engineers (on a national basis) and summarized in "Report of Societal Needs of Young Engineers", Feb. 1974. A limited number of copies are still available. Contact Ms. Emily Sirjane (212) 752-6800, Ext. 592. You can obtain an excerpt by simply reading "The Under 30 EE Speaks Out," P. 71 of the Apr. 1974 SPECTRUM.

Your ideas or your approval and reinforcement of Section redirection are essential. If you positively cannot make the trip to Bell Labs at least phone or write the NEWSLETTER or a section officer and communicate your ideas. If you feel strongly about one or two plans, become active and ensure that your ideas are not sidetracked.

Please think seriously about bringing your spouse to this meeting. He (She) will appreciate being in on the ground floor of any re-direction of the most important technical-professional society of your life.

If you are under 40, you have at least another 25 years of active participation in an organization that can be vital! If you are over 40, your experience and organizational abilities are needed. (If you are EXACTLY 40, with a birthday on October 17th, notify us and come to the meeting and we will sing Happy Birthday).

To get to Bell Labs, Murray Hill proceed as follows: Garden State Parkway to Rt. 22, proceed west about 13 miles (21 Km). Go past Bow Craft Recreation Area, Scotch Plains. 50 meters before the next overpass take Scotch Plains-Fanwood exit. At traffic light turn right on to Diamond Hill Rd. Pass one light, proceed to 2nd traffic light, turn right on Mountain Ave. Look for the lab on your right after a distance of about 1/4 KM. The total trip is about 20 minutes from the Garden State Parkway.

To arrive at Wally's-on-the-Hill, take the same exit from 22 West but instead of turning right on to Diamond Hill Road, go straight across at the light and up the hill about 1 KM.

Time:

7:30 PM, Thursday, Oct. 17

Place:

Arnold Auditorium, Bell Telephone Laboratories

Pre-meeting

dinner:

Wally's-on-the-Hill, Scotch Plains, Dutch Treat,

6:00 PM, Oct. 17, No Reservations

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## 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.

#### **SECTION OFFICERS** 1974-1975

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Member-at-Large	John M. Rausch
Jr. Past Chairman	Harlan J. Perlis

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#### USING THE TIME SHARING COMPUTER FOR ELECTRICAL ENGINEERING APPLICATIONS

This one day seminar is intended for Electrical Engineers who wish to acquire the knowledge necessary to start using a time sharing computer on the job for such problems as analysis and design of electric circuits and devices. No background is necessary except prior knowledge of at least one programming language (e.g., FORTRAN or BASIC) in some form.

The speakers will explain how to specify and use the necessary communications terminal equipment to connect with your choice of timesharing computer. The jargon and general operations of such systems will be explained, as well as some common problems and their resolution. A group of experienced users will review the most widely available computer programs for Electrical Engineering applications, their use in electronics, power, linear and non-linear circuitry, and the use of special graphic input and output devices. There will be ample opportunity for questions from participants both after each talk and during coffee breaks and lunch.

COMMUNICATING WITH YOUR COMPUTER. Data communication terminals and modems, graphic input and display devices for computers. Compiling, loading, and executing programs in batch and timesharing modes. "Mysterious" errors and messages from the computer to help in debugging your programs.

R.C. Levine, Information Engineering, Inc., Plainfield, N.J.

AVAILABLE CIRCUIT ANALYSIS PROGRAMS AND HOW TO USE THEM. Various widely available circuit analysis programs are examined and compared, highlighting what each one can and cannot do with regard to: type of circuit or components, time and frequency domain analysis, linear or non-linear devices, and other factors. Methods of preparation, "tricks of the trade," and generalizations to nonelectrical problems are included.

Stephen Herman, North American Philips Laboratories, Briarcliff Manor, N.Y.

MODELING COMPONENTS AND SUBSYSTEMS FOR COMPUTER BASED ANALYSIS. Circuit or mathematical representation of a component which is more complex than a single resistor or capacitor. For example, transistors or transformers particularly for high frequencies or fast pulse applications. Methods of fitting mathematical parameters accurately to experimental data for a device. Practical hints and cautions.

John J. Golembeski, Bell Laboratories, Holmdel, N.J.

DIGITAL CIRCUIT ANALYSIS PROGRAMS. Description of a digital circuit for purpose of computer circuit analysis of logical output states, timing diagrams, and fault analysis. Fault dictionaries and their use for testing and debugging digital circuits. A comparison of the general features of several available programs will be drawn.

Mark J. Flomenhoft, Bell Laboratories, Allentown, Pa.

GRAPHIC INPUT AND DISPLAY FOR COMPUTER AIDED DESIGN APPLICATIONS. Graphic input and output often reduces the amount of data that must be exchanged between the user and the computer, and thus reduces the possibility of error. It also is a more understandable means of human communication. Various available devices will be described (plotters, CRT displays, etc.) and program interaction by means of graphic devices will be shown.

Prof. G. Peter Jessel, University of Pennsylvania, Philadelphia

DATE:

October 18, 1974; Friday

PLACE:

Holiday Inn, Rte. 80 & Garden State Pkwy., Saddle Brook, N.J.

TIME:

9:00-4:30, Registration and coffee starting at 8:30

FEE:

\$90, including lunch and coffee breaks; \$10 extra to register at the door

To register, send check for \$90 made payable to North Jersey Section IEEE and mail to:

Mr. Richard T. Denton Bell Laboratories, Inc. Room 2B-210 1 Whippany Road

Whippany, New Jersey 07981

### EHV/UHV Measurements

The New York, North Jersey, and Long Island Joint Chapter Instrumentation and Measurements is sponsoring a one-day seminar on EHV/UHV Measurements on November 19, 1974 at Newark College of Engineering. The time is from 9:00 AM to 4:00 PM at the NCE Alumni Center, 323 High St., Newark, N.J. The agenda will consist of the following presentations:

- I. The Role of EHV and UHV in Power Systems
- II. Primary EHV/UHV Transducers
- III. Testing of EHV and UHV Equiment
- IV. Transient Measurements at EHV and UHV
- V. UHV Test Station

To register, send check (IEEE members \$10.00, Non Members \$15.00), payable to "JOINT CHAP-TER, I&M, IEEE", to Mr. T. Barabutes, Westinghouse Elec. Corp., Relay-Instrument Div., 95 Orange St., Newark, N.J. Please include your Name, Firm, Business Address, Business Phone. For further information: In new Jersey - contact Mr. T. Barabutes (201) 465-2293 — In New York - contact Mr. D.C. Roberts (212) 422-4800, Ext. 8224.



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- 4. The reason I joined the IEEE is:
  - a) every EE does, I might as well too
  - b) I like receiving SPECTRUM MAGAZINE and the NEWSLETTER. They provide me with information in areas I am interested in
  - c) I am a professional and the IEEE is a professional society which stimulates ideas and generates developments in my field
  - d) other reasons
  - 5. If you have tried ordering items from the Public Buyers Service what kind of response did you get? Are you satisfied? Are there any other items other than the calculator (last month's NEWSLETTER) that you would like to find out how many readers are interested in buying so we could get them cheaper?

## OCTOBER • 1974



Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 8 15 1	M T W T F S S M T W T F S 2 3 4 5 6 7 1 2 9 10 11 12 13 14 3 4 5 6 7 8 9 6 17 18 19 20 21 10 11 12 13 14 15		North Jersey Section Exec. Comm. Meeting 7:30 P.M. Bell Labs, Whippany	3	4	5
6	7	8	9	10	11	12
13	14	15	16	Non-Technical Section Meeting 7:30 P.M. Bell Labs, Murray Hill	18 Time Sharing Computer Seminar 9:00 A.M. — 4:30 P.M. Holiday Inn, Saddle Brook	19
20	21	22	N.J. Power Eng. Soc. 8:00 P.M., JCP&L Morristown N.Y. Bulk Mail Center Tour by Metro I&M 1:30 P.M. Jersey City	24 7th Annual Student Night, Power Soc. 6:30 P.M. Newark College of Eng. Newark	25	26
27	28	29	30	31 N.J. MTT Meeting 8:00 P.M., ITT, 500 Washington Ave. Nutley	FUTURE MEETINGS: Nov. 19–9:00 A.M.–4:00 P.M., Seminar on EHV/UHV Measurements, NCE, Newark	

## ADDITIONS AND CHANGES TO EXECUTIVE COMMITTEE

The following additions and changes should be made in the listing of the North Jersey Section Executive Committee which appeared in last month's issue of "The Newsletter."

The Membership Chairman is now:
Donald G. Bathke
79 Chimney Ridge Dr.

Convent Station, N.J. 07961

Business address:

Westinghouse 67 Evergreen PI. E. Orange, N.J. 07019

465-2316

Chairman of the Engineering Management Group (G-14) is:

A.T. Abromaitas
Edison Electronics Div.
McGraw-Edison Co.

2 Babcock PI. W. Orange, N.J. 07052 736-1000 Home phone: 538-1606

Correct spelling for Chairman of the Power Engineering Chapter is Ken Oexley.

Correct home address of Dr. De Lucia (Control Systems Chapter Chairman) is: 1030 Pompton Ave., Cedar Grove, N.J. 07009.

Business address for Alan H. Stolfen (Special Program Coordinator) should read as follows:

Digital Computer Controls 12 Industrial Rd. Fairfield, N.J. 07006 575-9100, ext. 232

#### FEEDBACK

- 1. WHY I won't fill out this card and mail it in?
- 2. WHY I won't attend section and committee meetings?
- 3. I am interested in working on the NEWSLETTER staff in any capacity whatsoever.

  I am interested in spending only one night a month learning how a newspaper operates, rewriting articles, editing, taking pictures, drawing cartoons, etc.