



The IEEE

Newsletter

Free Membership! and offers you can't resist.

By Max Schindler, Chairman

Before I tell you about the first meeting of your newly elected officers (See "Executive Committee" on p. 5), I want to thank those of you who went to the trouble of sending in their ballots. 90 out of 4900 may not look like much, but it's a binary order of magnitude better than last year, and at this growth rate participation will exceed 100% by 1980!

Now about the free membership: As you see, we have changed our format, to permit meaningful communications with (and amongst) our membership. We want to tell you what goes on in our Section, and we want to know how you like it. Use the "Bingo" cards! Write letters to your Editor! And help us find a new name for your Newsletter, which emphasizes the concept of a bidirectional communications link. Something like FEEDBACK, which (unfortunately) is already spoken for. Send your ideas to the Editor by Nov. 30, and the lucky winner will find a \$35 check under the Christmas Tree.

More good news: Inserted in this issue is a flyer from Public Buying Service — the kind of wholesale club you normally pay \$10 or more to join! They will get you almost anything at a discount. Just call them, give them your individual club number stamped on insert, and ask them: "How much for the model AB1 dishwasher from the XYZ Co.?" If it is a better price than your local discount store offers, you just order it and pay when it arrives in working condition. This service alone could pay for your membership many times over.

For smaller items (such as calculators) a down payment may be required. But if we order calculators by the dozen, we can get a better price break — so fill in the bingo card right now, and you may even find your preferred pocket brain under the tree! Yes, we try harder, but you must help us, PLEASE.

US in this case being your new officers, so back to that first meeting. We discussed, of course, the election results. More people voted for Members-at-Large, where there was a choice, than for the other officers. Why? Elementary — why vote if there is no choice! That's how I felt, so let me tell you HOW TO GET ON THE BALLOT FOR SECTION CHAIRMAN.

First you go to an IEEE meeting — ANY meeting you like — and ask the fellow up front if he has a job for you on his committee. Be forewarned — he may embarrass you by a kiss on the cheek. If you do a good job, the word gets around, and the usually hard-pressed Nominating Committee will ask you to run for Member-at-Large. For a contest, we need at least 4 (four) names EACH YEAR. Two get elected, and if both are able and willing, you have a choice for Secretary the following year. If not, the Nominating Committee looks at chapter officers for candidates. This year, we could not find a second candidate for Secretary. The next step in the normal progression is Treasurer, and if you can't find a



second qualified candidate for Secretary, forget about an alternate Treasurer! It's a miserable job, (ask my wife if you doubt it), but I would not want to see a Chairman who has not gone through this grind. For the next step, Vice Chairman, we are consequently down to one name, and he is for all practical purposes Chairman-Elect. Except when his company asks him to move, as happened this year, and the Nominating Committee had little choice but to ask the Treasurer to run.

So you see that you really choose the Chairman when you vote for the Members-at-Large. We plan to give candidates sufficient exposure in the Newsletter for an intelligent choice. We will also publish articles by all the present officers, so that you may get to know them better. If the Nominating Committee can find several candidates for the higher offices, they will probably come from their midst. Some Sections have two Vice-Chairmen, and we shall explore this possibility. But nothing will happen, if everybody "lets George do it".

How does one attract volunteers? We have discussed this at length, but the answer is evasive. For the time being, we have chosen to offer FREE participation for active committee members in all the Courses or Lecture Series your Section is offering. If you like this idea, and have any feelings for the plight of your profession, check the appropriate box on the feedback card. Let's face it — the IEEE is your ONLY hope for an improvement in your socio-economic status for MANY years to come.

Many other plans are under consideration and I would love to tell you all about them. But for now, enough is enough! In the meantime, read the articles "The Under-30 EE Speaks Out" and "Report of the Treasurer — 1973" in the April and June issues of **Spectrum** respectively. We are going to discuss these subjects in the future.

A final word: If you have been following the Pension Reform Bill, you probably noticed that both the House and Senate approved a bill which gives engineers a preferred vesting schedule. According to the Electronic Engineering Times (an excellent biweekly, and free yet!) Mr. R.W. Laxson, Vice President of Honeywell, persuaded the joint committee to drop this provision. We have urged our Washington office to alert all US members via first class mail in a case of such importance. As the gun lobby has shown many times, only a massive letter campaign can help us in such a case.

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 ¼ 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

A Time For Change

The Newsletter has taken on a new appearance. Along with this change have come many others. Most significant are the newly elected officers and committee chairmen of the North Jersey section. They are voluntarily filling responsible positions to better serve the members. You will find elsewhere in this publication their names and phone numbers. In future issues we will try to introduce them to you. On the front page, Max Schindler, Chairman gives his views as to what the future holds in store for the Section and the Newsletter itself. Bob McMillan, Vice Chairman also has contributed an article that is of importance to the readers.

To introduce the new Newsletter to you something should be said about the Editor. I am not coming into this position inexperienced. I was the Associate Editor when Bob McMillan was Editor of The Newsletter. I was also Editor of the Newark College of Engineering student newspaper, The Vector, with which some of you are familiar. I will attempt to put these experiences to good use in the immediate future. Unfortunately, I only have a couple of members who have volunteered to aid me. I hope with the Newsletter's new face there will be others willing to learn where the action is.

With most of the planning done by Max Schindler and Mike Perugini (Business Manager, et. al.) we have come up with a format that will resemble a newspaper more so than before.

Since many of you will be contributing articles and announcements for the Newsletter we are asking that you also submit pictures. We don't want the run of the mill mug shots but prefer the more descriptive action pix which would catch the reader's eye.

The Feedback card, located on the back page, will be beneficial communicate with and among the members if it is used. A calendar for the month will be included in each issue for your use.

The most important items, however, are the articles we receive. In the past only announcements of meetings and/or lectures were published. We'd like to print the results of these events. Not all of us can attend each workshop even though it may be of great value. If someone would take it upon himself or delegate the responsibility to a member

the duty of summarizing the events he attends (bring a camera along) we'll print the article and give the writer a by-line. This would result in advertizing your special interests and stimulate better participation which is what everyone is looking for.

The newspaper exists for the main reason of COMMUNICATION. We are all looking forward to a good year and I hope the Newsletter will contribute a lion's share.

Fellows, Senior Members & Retirees

Fellows, Senior Members and Retired Members: all grades are needed for their special contribution to the North Jersey Section.

Fellow grade members have achieved a high pinnacle of success in a technical field within electrical engineering or a related science. North Jersey members have at least one opportunity each year to meet many of you at the annual section banquet, but the need for contact by young engineers with the recipients of the Institute's highest membership grade suggests that you invite yourselves to at least one section meeting and one or more chapter mtgns each year. Please wear your fellow emblems, and make it a point to introduce yourself to the youngest engineers there.

Consider one other possibility: Could you volunteer a talk in your field that would be largely understood by the average section or chapter member? Contact the chapter chairman in the group of your speciality, or if of general interest, contact the section vice chairman, or the program chairman.

Senior members, much of the message to the Fellow Grade Member applies to you. Your attendance will enhance meetings, and many of you could prepare a technical talk for section or chapter presentation. You are also urged to wear your senior member emblems. The special task for senior members is to provide the experience and achievement factors to the various committees and groups within the North Jersey Section. Young senior members should push for leadership roles within committees and groups, not to mention the section itself. Older senior members who can attract younger members into active roles are equally welcome!

Retirees, though our section may be stressing our appeal to younger members, we also want to include the young in heart. It is essential that the flavor of the past is not lost, and that we evolve rather than revolve. You should belong to at least one committee or chapter, and

our section is particularly interested in retirees who would enjoy devoting time and effort in committee work.

It is an interesting thought to think of what it would be like if 15% of the section membership showed up at one meeting. They wouldn't fit! With your help, maybe we can make this problem a reality.

The N.J.E.C.S.G. Needs Help

Guidance counselors in the North Jersey area need help, and you can help them. They need to have a working engineer explain to them and their students what an engineer does and what an engineering education is like.

The North Jersey Section of IEEE, has been concerned about the image the general public and the high school student, in particular, has of the engineering profession. A positive step in projecting a correct picture of engineers would be to inform the young people who seem to be concerned about the society problems. We want to say, "Look, engineering is problem solving and its methods are those needed to solve the problems you are interested in." But how to do it?

Our section has supported the New Jersey Engineer's Committee for Student Guidance (NJEC SG) which is sponsored by the ASEE, NSPE, and ECPD. They are organized on a state-wide basis to provide speakers to any high school that makes a request for information on engineering. It's a one-shot visit with no opportunity for follow-up or personal exchanges with the students. Of the 448 high school in New Jersey, 109 were visited by NJEC SG in 1973. It would seem something more is needed.

The NJEC SG has set new long range goals. The primary goal is to have at least one engineer on call to visit guidance counselors, students, and/or parents for every high school in the state. These people need information to make an important decision only engineers like you can give. In addition, we need to dispell the syndrome of "scientific success" and "engineering failure." What better place than on the enthusiastic young?

If you are interested in helping out the school in your area (or elsewhere) and spreading the word, please let us know by calling or writing the NEWSLETTER or Dr. Robert McMillan, Chairman, New Jersey Engineers Committee for Student Guidance, 323 High Street, Newark, N.J., 07102; phone 645-5467, (home) 744-6794 or call Dr. Ervin Bales, Special Projects Chairman, N.J.E.C.S.G., 792-2700, ext. 331 or 253.

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 Equipment
- 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 CHAPTER, 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.

So, What's The Story?

The story is that you don't have to belong to a union or be a civil servant to get a refrigerator, freezer or color TV set at 25 to 40% below retail price. All you have to do is a) be a member of the IEEE and b) fill out the form found on the flyer enclosed in the Newsletter and send it in to the Public Buying Service. When you are interested in buying a radio, for instance, go out and price it at a retail store then call PBS and they will quote you their price. If it sounds good the item will be delivered to your home. Upon receiving it you check it out, making sure it works and isn't damaged. If it is exactly what you ordered, and in perfect condition, then you make your payment. If you find anything wrong, you send it back and PBS sends you another, with no extra delivery charge.

So, look it over. Send in your card being careful to note your service number and use the service right away. To start things off, if you're looking for a calculator fill out the Feedback Card found on the last page of this Newsletter. We'll find out which calculator is in most demand and get a price quote.

Use this service as much as possible, it's your way to combat inflation.

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NEWSLETTER STAFF
Editor Ray Vaccari
Managing Editor Barb Blair
Business Manager M.M. Perugini
Student Activities Editor Les Kovach
Associate Editor Ken Weiland
Member, Editorial Staff Ed Hendela
Chairman, Publications Ray Vaccari

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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.

SECTION OFFICERS
1974-1975
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Vice Chairman Robert E. McMillan
Treasurer James F. Kampschoer
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N. Y. Section, IEEE



Power and Industrial Div.

EDUCATIONAL PROGRAM — FALL 1974

SPECIAL STUDY GROUPS

Metropolitan Section



ASME

STUDY GROUP NO. 5
FACILITY ELECTRICAL SUPPORT SYSTEMS
WEDNESDAYS, 6:30-8:30 P.M., Starting September 25, 1974
Roger Smith Hotel, 47th St., & Lexington Ave., N.Y., N.Y.

Group Sponsor: Morton Isaacs, P.E.
Lizardos Engineering Associates

Group Coordinator: Edward T. Gimbut, B.E.E.
Bussman Manufacturing Co.

This lecture series deals with the design and operational aspects of electrical systems for buildings and grounds, other than light, heat and power. The first part of the series will be devoted to the systems and equipment. The second portion of the lectures will be directed toward the application of the systems to Health Care, Transportation and Educational Facilities.

A field trip to a Facility using most of the systems discussed and some systems that have not been discussed will be available. British Airways (BOAC) will send a London based engineer to provide a tour-lecture of their passenger terminal at John F. Kennedy Airport. The tour-lecture will be limited to a specific number of students, please indicate whether you plan to attend, data and time will be established by BOAC during the month of October 1974.

Question and answer periods will be part of each session.

- September 25 — Telephones:** A presentation on the details of equipment space requirements, raceway systems and interface data by representative of N.Y. Telco. A booklet on telephone standards and general criteria for space allocations and raceway for systems will be presented to attendees.
Speakers: Harry Fulford & Harry Schwerdt
New York Telephone Co.
Building Industry Consultant
- October 2 — Data Transmission:** A presentation on equipment and systems for transmission of data. The lecture will be oriented toward the application pulse/frequency systems to the control and monitoring requirements of Commercial, Industrial and Governmental Facilities.
Speaker: John V. Wilding, P.E.
Quindar Electronics Inc.
- October 9 — Fire Detection, Signals & Evacuation Control:** Details of equipment and systems for early warning fire detection and alarm signals. A discussion of the major features of the "so-called" "E CODE", (New York local Law No. 5). A discussion on the concept and the steps to achieve compliance.
Speakers: Nello DiRezze, Al Spiatto
Pyrotronics Inc.
- October 16 — Time and Program Systems:** The systems and equipment for coordinated display of time and applications of programmed systems in Commercial, Industrial, Govern-

mental, Educational and other facilities. Criteria and design features will be reviewed.

Speaker: Fred Schuler

Simplex Time Recorder Co.

- October 23 — Security:** A presentation on the systems, equipment and programs available for electrical and electronic surveillance, monitoring and control in buildings and grounds.
Speaker: William E. Riker
Holmes Protection Inc.
- October 30 — Proprietary Systems:** A presentation on the "single system" concept for control and monitoring of multiple systems and conditions in facilities. Single point readout at consoles in security and/or maintenance centers will also be reviewed. Close Circuit Television will be briefly reviewed.
Speaker: William Evans
Honeywell Corp.
- November 6 — HVAC Controls & Monitoring:** A consulting engineer discusses the design aspects of the control and monitoring of comfort and industrial HVAC systems. He will review criteria and methods for developing the control and monitoring systems and present recommendations for data to be included in Contract Drawings and Specifications.
Speaker: Evans J. Lizardos, P.E.
Lizardos Engineering Associates
- November 13 — Transportation Passenger Terminals:** The systems used in modern passenger terminals and the provisions that require the attention of the consultant. Some of the systems to be discussed: Fare Collection, Security, Arrival/Departure, Visual and Audio Announcements, Public Address and Communications.
Speaker: Torben Hansen, P.E.
Assistant Chief Engineer
Deleuw Cather Co., Washington, D.C.
- November 20 — Health Care Facilities:** A review of the support systems equipment and materials for Health Care Facilities. This lecture will be directed toward the audio, signal and communications systems.
Speaker: Marvin Fischer, P.E.
Asst. Vice President
Brookdale Hospital, Brookdale, New York
- November 27 — Educational Facilities:** The design requirements and the related responsibilities of the Architect-Engineer in planning and specifying communication and signalling systems. This will include a general review of the design concepts for intercom, television, visual aid, sound, time program and signalling systems as well as the relationships of same to each other as applied to Educational Facilities.
Speaker: Leonard A. Ambruso
Electrical Department Head
Frederic P. Wiedersum Associates
Valley Stream, New York

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N. Y. Section, IEEE



Power and Industrial Div.

EDUCATIONAL PROGRAM — FALL 1974

SPECIAL STUDY GROUPS

Metropolitan Section



ASME

The Fall Educational Program consists of the following subjects, which are described in detail within this bulletin:

STUDY GROUP NO. 1 - NUCLEAR POWER PLANT DESIGN AND ENVIRONMENTAL CONTROL — PART I

STUDY GROUP NO. 2 - ENGINEERING PROJECT MANAGEMENT

STUDY GROUP NO. 3 - COMPUTER SYSTEMS — PART II

STUDY GROUP NO. 4 - FUNDAMENTALS OF HOSPITAL ELECTRICAL DESIGN

STUDY GROUP NO. 5 - FACILITY ELECTRICAL SUPPORT SYSTEMS

NOTE: Review Study Groups timed for the November 1974 Professional Engineering License Examinations are already in progress.

REGISTRATION INFORMATION FOR SPECIAL STUDY GROUPS

FEE PER GROUP	PAYABLE TO	MAIL TO
\$35 each for members, IEEE, ASME; \$45 each for all others	"POWER & IND. GROUP N.Y. SECTION IEEE"	John Tambasco, Educational Committee, IEEE New York State Urban - Development Corp. 133-45 Ave. Americas New York, N.Y. 10019 Tel. (212) 974-7617

Fill out one registration form for each group and mail with payment

REGISTRATION FORM	REGISTRATION FORM
Name (printed) _____	Name (printed) _____
Firm _____ Position _____	Firm _____ Position _____
Business Address _____	Business Address _____
_____ Phone No. _____	_____ Phone No. _____
Home Address _____	Home Address _____
Study Group _____	Study Group _____
Member of:	Member of:
<input type="checkbox"/> IEEE	<input type="checkbox"/> IEEE
<input type="checkbox"/> ASME	<input type="checkbox"/> ASME
<input type="checkbox"/> OTHER _____	<input type="checkbox"/> OTHER _____
<input type="checkbox"/> NON-MEMBER	<input type="checkbox"/> NON-MEMBER
Membership _____	Membership _____
No. _____	No. _____
<div>(Do Not Write In This Space)</div> <div>Admission Card No. _____</div> <div>Refund Certificate No. _____</div> <div>Fee Paid \$ _____ (Cash, Check, M.O.)</div> <div>Date _____ By _____</div>	

Note: See Registration Information for Checks

Note: See Registration Information for Checks

Registrations will be accepted at first and second sessions to the limit of room capacity



EDUCATIONAL PROGRAM — Special Study Groups



STUDY GROUP NO. 1

NUCLEAR POWER PLANT DESIGN
& ENVIRONMENTAL CONTROL PART I
MONDAYS, 6:30-8:30 P.M., Starting September 16, 1974

Consolidated Edison Co., Room 1425, 4 Irving Place, New York, N.Y.

Group Coordinator E.N. Mercouris, Senior Facilities Engineer,
& Sponsor: RCA, Globcom, Tel. (212) 363-4105

This series of lectures in three parts will take 1½ years to complete. Registration will be made for each part separately. Notes authored by E.N. Mercouris will be distributed at the beginning of each session to supplement the lectures. Part II to follow this part in spring 1975, will deal with the new generation PWR, BWR, HTGR, LMFBR with emphasis on the engineering, control, systems, shielding and construction. Part III will deal with theoretical physics, nuclear and environmental concepts.

- September 16 — Boiling Water Reactors (BWR) — Package control room design and process computer control.
Speaker: C.L. Cobler, General Electric
- September 23 — Pressurized Water Reactors (PWR) — and PRODAC computer supervisory systems.
Speakers: G.P. Toth, Manager Plant Evaluation,
R. Fleming, Senior Application Engineer,
Westinghouse Nuclear Energy Systems
- September 30 — Boiling Water Reactors (BWR) — and computer control.
Speaker: Robert O. Hurd, Start-up and Testing Engineer,
Gilbert Associates, Inc.
- October 7 — High Temperature Gas Cooled Reactors (HTGR) Principles, processes, control and components.
Speaker: Erik Pedersen, Director Sales N.E.,
General Atomic Co.
- October 21 — Engineered Safeguards Systems and AEC Licensing Procedures — Safety injection, core cooling, containment cooling, doped sprays, ventilation systems, containment isolation, PSAR, FSAR, construction and operating licenses.
Speaker: F.D. Hutchinson, Asst. Vice President, Mgr. Nuclear Power Engineering, Gibbs & Hill, Inc.
- November 4 — NUCLEAR Power Plant Processes — Air, liquid and solid monitoring and control.
Speaker: Joseph S. Baron, Stone and Webster
- November 11 — Construction Management — Construction, scheduling, delays, tests and start-up operations.
Speaker: Allan Conrad, Manager, Bechtel Power Corp.
- November 18 — Pressurized Water Reactors (PWR) — Advanced control center design utilizing computers.
Speaker: T.G. Schultz, Manager Computer Applications
Combustion Engineering, Inc.
- November 25 — Reactor Instrumentation & Control — Control boards, process consoles, mini-computers and peripherals and on-line computers. In-core and out-of-core monitors and neutron sources.
Speaker: E.N. Mercouris, Senior Facilities Engineer,
RCA, Globcom
- December 2 — Pressurized Water Reactors — On-line computers and simulator training control boards.
Speaker: Norman S. Elliott, Manager Nuclear Training,
Babcock & Wilcox
- December 9 — Nuclear Power Plant Packaging — Off-shore Nuclear Power station and barge shipment considerations. Multiple nuclear power plants. Balance of plant components and pre-fabrication on the module basis.
Speaker: F.E. Bonsack, Applications Engineer,
Off-shore Systems Inc.

STUDY GROUP NO. 2

ENGINEERING PROJECT MANAGEMENT
TUESDAYS, 6:30-8:30 P.M., Starting September 24, 1974

Consolidated Edison Co., Room 1405, 4 Irving Pl., New York, N.Y.

Group Sponsor: Lewis E. Burnett, PASNY
Tel. (212) 265-6510, ext. 209
Group Coordinators: San N. Chin, PASNY
Tel. (212) 265-6510, ext. 269
Willard M. Laib, PASNY
Tel. (212) 265-6510, ext. 290

This series of lectures is designed for engineers who are interested in commercial, industrial or institutional building type projects, regardless of their academic specializations. However, this series should be of special interest to the electrical engineer who finds himself becoming more involved as a project manager.

- September 24 — Introduction — Project initiation, Format of construction project, Organization chart, and Role of project manager.
Speaker: To be announced
- October 1 — Project Design — Owner-architect relationship, Feasibility studies, Preliminary design, Models, Specifications and drawings, and Concrete, steel and wood structures.
Speaker: C. Morrissey, URS/Madigan-Praeger, Inc.
- October 8 — Project Design Team — Inter-relationships between architect, structural, mechanical and electrical engineers. Areas of responsibility on planning and designing the project.
Speaker: C. Morrissey, URS/Madigan-Praeger, Inc.
- October 15 — Bidding Procedures and Estimates — Bidding procedures (Bid depository, and Instructions to bidders). Estimating (Types of estimates such as Stationary, and Unit estimates). Also, Common estimating error sources.
Speaker: H.F. Shatzman, URS/Madigan-Praeger, Inc.
- October 22 — Finance — Contractor's personal equity in the project. Methods of raising working capital. Sources of credit. Overhead expenses, Profit Income tax and Depreciation. Equipment leasing, Schedules and Maintenance.
Speaker: To be announced
- October 29 — Building Site — Locating the building site. Site inspection (Excavating and Dewatering). Temporary facilities (Field office, Building superintendent, Yard master, and Watchman).
Speaker: R. Schoefeld, URS/Madigan-Praeger, Inc.
- November 12 — Bonds and Insurances — Types of bonds and insurances required, What they cover, Those that are obligatory and Those that are optional.
Speaker: C. Schmitt, Douglas Gibbon Hollyday & Ives.
- November 19 — Contract Documents — Types of contracts, Methods of wording contracts, Subcontractor qualification statements, and Progress payments to subcontractors.
Speaker: C. Schmitt, Douglas Gibbon Hollyday & Ives.
- November 26 — Construction Schedules — Gantt Bar Chart, CPM, Financial estimate for individual jobs, Change orders, Daily progress reports, and Time cards.
Speaker: H.F. Shatzman, URS/Madigan-Praeger, Inc.
- December 3 — Income Tax Guidelines for Small and Medium Size Professional Practices — The Unincorporated entity, Corporation, Contributions and contribution formula, Forfeitures and gains (Benefits, Termination and Costs), Pension or profit sharing, Tax advantages, and Problems of the professional corporation.
Speaker: A.J. Teichberg, C.P.A., Attorney at Law

STUDY GROUP NO. 3

COMPUTER SYSTEMS — PART II

WEDNESDAYS, 6:30-8:30 P.M., Starting September 11, 1974

Consolidated Edison Co., Room 1425, 4 Irving Pl., New York, N.Y.

Group Sponsor: David Hawkins
Group Coordinator: Frank Logan

This study series is designed to introduce the practicing engineer and consultant to problem solving techniques with computers. Emphasis will be to expose and explore the many computer tools available for problem solving. Students will learn about computer systems, cost, languages, application packages and hardware.

- September 11 - Computers for Consultants — Overview of computer programs available for solving engineering problems in structures, lighting, project control.
Speaker: Victor Henschel, GE
- September 18 — Modeling and Forecasting — Typical modeling applications such as financial and corporate models, forecasting techniques.
Speaker: Paul Morrow, UCS
- September 25 — Environmental Studies — Development of models, gathering of weather data, etc.
Speaker: Philip Hsiang, Con Ed
- October 2 — Project Control Systems — CPM, resource leveling, project II, special systems.
Speaker: Sherman Holtz, Con Ed
- October 9 — Time Sharing Computer Systems — How problems can be solved quickly and rapidly with Time Sharing, Introduction to the BASIC Language.
Speaker: David Hawkins, Con Ed
- October 16 — Introduction to APL — Use of APL for vector and matrix problems.
Speaker: Ken David, APLS
- October 23 — Data Base Systems — Part I — Simple record keeping systems, data structures.
Speaker: Richard Briesemeister, Con Ed
- October 30 — Data Base System — Part II — Data retrieval, sorting, report generation.
Speaker: Richard Briesemeister, Con Ed
- November 6 — Software Development Cost — Cost and scheduling for development of major computer programs and system.
Speaker: Paul Ast, Con Ed
- November 13 — Statistical Analysis and Reliability Studies —
Speaker: Philip Hsiang, Con Ed

STUDY GROUP NO. 4

FUNDAMENTALS OF
HOSPITAL ELECTRICAL DESIGN

TUESDAYS, 6:30-8:30 P.M., Starting October 1, 1974

Roger Smith Hotel, 47th St., & Lexington Ave., N.Y., N.Y.

Group Sponsor: William Perlman, Roytran, Inc.
& Coordinator: Tel. (212) 782-1505

Instructor: Robert Sullivan
Frank J. Sullivan Assoc., N.Y.C.

This course is directed toward those people interested in or currently involved with hospital design.

- October 1 — Introduction — Definition of a Health Care Facility; Applicable Codes (NFPA, NEC, HEW, SHC, etc.), Organizations and periodicals which disseminate Hospital Information; Interface of the Electrical Design Engineer, Architect, Owner, State Agencies, etc.; Sequence of Hospital Construction from initial concept to final occupancy.
- October 8 — Electrical Power Distribution — Normal and Emergency Distribution; Standby Power Generator - all in relationship to Article 517 of the National Electrical Code.
- October 15 — Hospital Power Utilization — Hospital Grade wiring devices, location of wiring devices within a typical patient bedroom, location of wiring devices within other Specialized Areas.
- October 22 — Hospital Lighting — Lighting consideration within the typical patient bedroom, Operating Suite, Radiology Suite, Laboratory, Delivery Suite, Nurseries, Intensive Care Unit, Coronary Care Unit.
- October 29 — Hospital Signal Systems — Nurse Call, Doctors' Paging, Doctors' In-Out Registry, Fire Protection, Intercommunication, Telephone, Security, Master Antenna.
- November 12 — Specialized Hospital Systems — Operating Suite Electrical Isolation and Annunciating, Electrically susceptible patient grounding, radio-frequency shielding.
- November 19 — Specialized Hospital Systems (cont.) — Physiological monitoring (proximate, remote and centralized), Radiographic and Fluoroscopic Techniques, Closed Circuit Television System.
- November 26 — Coordination with other trades medical gas annunciation, tamper-switches, automatic smoke dampers, noise abatement, site lighting, etc.
- December 3 — Typical Designs — Layouts and on-lines developed. Open discussion.
- December 10 — Conclusion — Future trends in Hospital Electrical design including Centralized EKG Monitoring via Computer Centralized Communication, Automatic Diagnostic equipment, Automatic Scanning Equipment.

* Denotes mailing address

NORTH JERSEY SECTION EXECUTIVE COMMITTEE

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Publications and Newsletter Editor Ray J. Vaccari	* 236 Sunmit Rd. Moutainside, N.J. 07092	Okonite Co. Canal & Jefferson Sts. Passaic, N.J. 07055 (201) 825-0300 x519	METSAC Representatives Dr. Harlan J. Perlis	(See Jr. Past Chairman)	
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2. MEETINGS

The best time, date and place to have section, committee, etc. meetings for me would be:

TIME PLACE near what major highway

DATE (circle desired date)

Mon. Tues. Wed. Thurs. Fri.

in what general area

Week of Month: 1 2 3 4

what type of mtg. place desired
(auditorium, rented hall, etc.)

3. NEWSLETTER

The new format is better same worse than before.

To go with the new format a more appropriate name for the Newsletter would be:

Suggestions as to how to get me interested in attending section of committee functions:

SEPTEMBER • 1974

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
	LABOR DAY					
8	9	10	11	12	13	14
15	16	17	18	19	20	21
		JEWISH NEW YEAR				
22	23	24	25	26	27	28
				YOM KIPPUR		
29	30	AUG. OCT. NOTES: S M T W T F S S M T W T F S 4 5 6 7 8 9 10 6 7 8 9 10 11 12 11 12 13 14 15 16 17 13 14 15 16 17 18 19 18 19 20 21 22 23 24 20 21 22 23 24 25 26 25 26 27 28 29 30 31 27 28 29 30 31				

Sample-dot Compatible Narrowband TV

Sample-dot compatible narrow-band TV system will be the subject of the chapter meeting of the Communication Society of the Philadelphia Section, Wednesday, September 18, 7:30 p.m., at the GE Space Technology Center, Valley Forge, Pa.

Inventor R.F. Stone, Sample-dot Program Manager, Space Sciences Labs, will discuss the newly-patented technique both from the technical and applications standpoints. This technique permits better utilization of video bandwidth and is a cost-effective approach for multi-channel live TV transmission. Potential commercial applications including visual telephony, hospital patient monitoring, traffic control and area surveillance and military applica-

tions such as TV guided bombs and remote piloted vehicles will be discussed. A demonstration will follow the meeting. An optional dinner is available at the Peacock Inn, Rts. 202 and 363 at 6 p.m. Reservations are required for the dinner — call IEEE Office (215) 594-8106 or 8134.

Engineering Managers

May we invite you to invite your engineers to attend North Jersey Section meetings and at least one or two chapter meetings each year? Your engineers will be more alert to the relationship of the changing field to their own jobs. Your engineers will get to know other engineers whose expertise can often be tapped to solve a problem unusual to your plant. Your engineers may learn of new techniques that will provide new applications for your product.

Once in a while, attend a meeting yourself! You will enjoy it and in time, your engineers will notice your attendance and start becoming more active in their own attendance.

Your views on the optimum approach of the North Jersey Section relating to such matters as employer-employee relations will be essential to the section.

May we make one further suggestion? Group 14, Engineering Management, requires revitalization in North Jersey. A full group of officers is needed to plan and support a program. Please contact the Chapter Coordinator, Bernie Demarinis, (609) 448-6369 (home) or (201) 284-2074.

Executive Terminology

It is in process - So wrapped up in red tape that the situation is almost hopeless.

We will look into it - By the time the wheel makes a full turn, we assume that you will have forgotten about it too.

Field Trip to Mail Center

The New York, North Jersey, and Long Island Joint Chapter Instrumentation and Measurements is 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.

FEEDBACK

1. POCKET CALCULATORS

In addition to the four basic functions I require the following:

- ☐ memory
- ☐ root, square
- ☐ log, antilog
- ☐ scientific notation
- ☐ trigonometric functions
- ☐ other
- ☐ under \$50
- ☐ under \$80
- ☐ under \$120
- ☐ under \$160
- ☐ under \$200
- ☐ other

This information will be useful in determining which type of calculator is in most demand for our readers, which could be purchased through the buying service. See article and inserted flyer.