

Continental Shelf
Exploration Risks

On November 15, Mr. Dan Patton, Chief of Division of Environmental Assessment of the New York Outer Continental Shelf Office will speak on the "Risks Associated with Outer Continental Shelf Exploration and Production Operations".

This meeting was scheduled because of the current energy shortage and the fears expressed by environmentalists concerning the consequences of off-shore oil exploration, particularly after the North Sea blowout.

Exploration, development & pro-

Trends In Local Digital Switching

A seminar on Trends in Local Digital Switching will be sponsored by the IEEE Communications Society, New York Section, on November 15, 1977, from 9 AM to 4:30 PM, at the United Engineering Center, 345 E. 47th St., N.Y.C.

Advances in digital technology have made a major impact on the design of modern switching systems. This seminar will explore transmission considerations and recent developments in switching systems.

The program covers:

"Transmission Planning for the Evolving Digital Network", by W.L. Ross, Bell Telephone Laboratories, Holmdel, N.J.

"A Class-5 All-Digital Office", David Hinshaw, Stromberg Carlson, Sanford, Fla.

"Digital Switching Applied to Automatic Call Distribution", Dennis Kaliher, Rockwell International, Cedar Rapids, Iowa.

"Integrated Transmission and Switching", Tracy Storer, TRW/VIDAR, Mountain View, Calif.

"Trends in Local Digital Switching", Nick Skaterda, Siemens, Cherry Hill, N.J. Round Table Discussion, Speakers & Audience.

The fee, payable to IEEE COMSOC, is: \$40 members, \$45 non-members. Mail to: P.M. Paterno, Chairman Education Committee, N.Y. Telephone, Rm. 143C, 1095 Ave. of the Americas, N.Y.C. 10036.

For further information contact: P.M. Paterno (212) 395-2109.

REGISTRATION FORM

Please register me in the seminar on Trends in Local Digital Switching.

Name _____

Firm _____

Business Address _____

Phone No. _____

Member IEEE _____

Do not Write In This Space

Non-Member _____

Fee Paid \$ (Cash, Check, MO)

Date _____

Fee Includes Lunch and Coffee Breaks

Insights Into New
Jersey's Industrial
Development

by G. Fenn
Editorial Staff

Industrial development in New Jersey is closely linked to the development and use of energy related products. Since the end of the Vietnam war, New Jersey has been losing manufacturing employment at a staggering rate and now has to compete with its neighboring states for the available manufacturing employment. Labor and business are quite aware of environmental threats concerning the expansion of energy and industrial development while academia and public interest groups are more involved with the detrimental effects on the environment by any sudden industrial expansion. The general public is quite aware of the environmental problems but seems to believe that the state's energy supplies should be allowed to increase since that type of position would mean the greater availability of jobs.

The expansion of nuclear-related electricity, outer continental shelf oil drilling, liquid natural gas installations and solar energy will have a great effect on New Jersey's economic well being in the near future.

New Jersey is the number one state in pharmaceutical research, energy research, capital of the transportation industries (land, air and water) and is the home of the Meadowlands Complex. Is there a way to accomodate environmental questions as well as to create some industrial expansion and still remain number one in the nation? Sure it's possible, but everyone's backing is necessary to make all of the above endeavors a success.

IEEE T-SHIRTS

T-shirts may be ordered from IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854. They are very attractive and cost \$3.75 each in quantities of 1 - 9; \$3.95 each in quantities of 10 or more.

The sizes are S, M, L and XL. Make checks payable to IEEE. New Jersey residents add 5% sales tax. Allow 4 weeks delivery.



PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

Volume 24 November 1977 No. 5

Published monthly by the North Jersey Section of the Institute of Electrical & Electronics Engineers, Inc. Office of Publication: 6 Robert Terrace, Mount Arlington, N.J. 07856.

NEWSLETTER STAFF

Editor Ray Vaccari
Associate Editor Sidney Bell
Managing Editor B. Blair
Business Manager M.M. Perugini
Publications Chairman Joe Winston

Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial matter should be addressed to: Ray Vaccari, Editor, 236 Summit Road, Mountain-side, N. J. 07092. All communications concerning business matters, including advertising, should be addressed to: The Newsletter, c/o Girard Associates, Inc., 399 Howard Boulevard, Mt. Arlington, N. J. 07856. (201) 398-5524.

Subscription: \$0.75 per year through dues for members: \$1.50 per year for non-members.

REPORT ALL ADDRESS CHANGES TO:
IEEE Service Center
445 Hoes Lane
Piscataway, N.J. 08854
(201) 981-0060

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

Chairman Frank Gialanella
994-0736
Vice Chairman - 1 Donald G. Bathke
465-2316
Vice Chairman - 2 Ken Oexle
539-6111 X-488
Treasurer Alan H. Stolpen
687-9226
Secretary Alex McPhee
967-9415
Member-At-Large Alex Brown
696-4695
Member-At-Large Frank Relotto
283-0600
Member-At-Large Jerry Uhrig
386-6845
Jr. Past Chairman Norman A. Blesman
430-8091

Second Class Postage Paid
at Mount Arlington, N.J.

Microprocessor Field Trip

The N.J. Computer Society will sponsor a Microprocessor equipment display and demonstration. On display will be the microprocessor hardware support products of many of the major manufacturers. In addition there will be a lecture and a question and answer session relevant to this display.

The speaker will be Mel Kutzin of Schweber Electronics, Director of the Microprocessor Center.

Time: 7:00 PM, November 17, 1977.

Place: Schweber Electronics, Westbury, Long Island, N.Y.

Further information: Call Krishna, 201-627-6207, Avionic Products Eng.

Nuclear Controversies

Dr. Benjamin Stevenson will discuss from a technical point of view the issues that are now stalling a massive increase in available nuclear energy. The meeting will be at 7:30 PM, on November 9, 1977, in the Punchbowl Room at Jersey Central Power and Light, Morristown. This will be a combined Multigroup-North Jersey Section meeting.

Issues such as the breeder reactors: thorium vs plutonium, safe handling of fissionable material, waste disposal, thermal pollution, security and other topics will be discussed.

Electrical Engineers should be particularly careful to keep informed on these sensitive topics. If U.S. runs short of energy and suffers industrial decline,

the national consequences will be tragic. See you there!

Time: 7:30 PM, Wednesday, November 9, 1977.

Place: Jersey Central Power & Light Corp., Punchbowl Room, Madison Avenue at Punchbowl Road, Morristown, New Jersey (Easy access to Madison Avenue via Route 287).

Fusion Power

The November meeting of the North Jersey Power Engineering Society will be a joint meeting with the ASME. The speaker will be Dr. Robert Mills from the Princeton University Plasma Physics Laboratory.

Dr. Mills will discuss the fusion process, the problems and devices associated with fusion reactors, containment problems at extremely high temperatures and the current work he is doing to solve these problems.

Dr. Mills is a Senior Staff member at Princeton University and is Head of the Fusion Systems Application Group. He received his Phd. in Nuclear Physics at the Univ. of California in 1952. He is the past President of the IEEE Nuclear and Plasma Sciences Society.

Time: 7:30 PM, Wednesday, November 16, 1977.

Place: Jersey Central Power & Light Company Madison Avenue (Rt. 24) and Punchbowl Road, Morristown, N.J. 07960.

Satellite Earth Station Tour

North Jersey Chapter MTT/AP is sponsoring a tour of the Glenwood Satellite Communication Earth Station located at Vernon Valley, N.J. The station is owned and operated by Western Union as part of the Westair program. The tour will consist of a viewgraph presentation, an equipment tour, and a question and answer session.

For reservation and information, contact: Eugene Niemiec, ITT DCD, 492 River Rd., Nutley, N.J. 07110; (201) 284-2758. A 6 PM premeeting dinner will be held at the Playboy Club at Vernon Valley, N.J.

Time: 7:30 PM, Thursday, November 17, 1977.

Place: Glenwood Earth Station, Vernon Valley, N. J.

PAC Committee Meeting

The PAC Committee meets on the 2nd Wednesday of every month at the ITT Conference Center, 500 Washington Ave., Nutley, N.J. Discussions cover professional activities, working conditions, engineering surplus, salary, benefits, pensions, employment, etc.

Call Richard Tax (201) 391-9075 after 7 PM for additional information.

Student Night

The North Jersey Power Engineering Society will sponsor the 10th Annual Student Night at New Jersey Institute of Technology (formerly Newark College of Engineering) on Thursday, December 8, 1977.

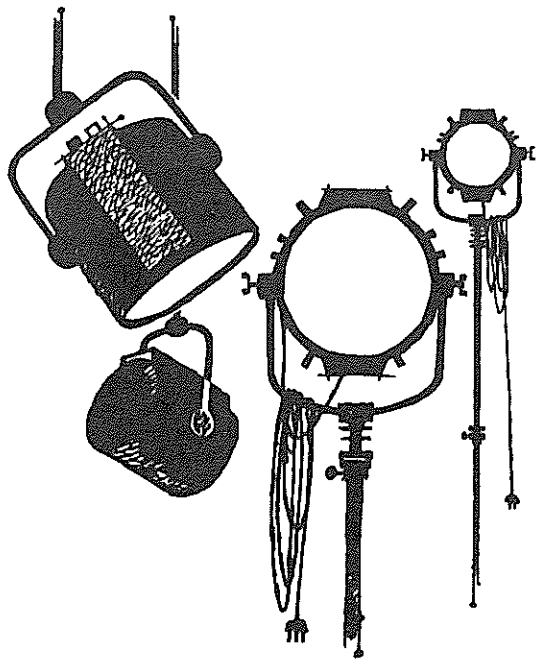
Students from several colleges in the area will be invited to participate in the program outlined below:

4:30 PM – **Tour:** Electric Dispatch Center Public Service Electric and Gas Co., 80 Park Place, Newark, N.J.

6:00 PM – **Dinner:** Complimentary dinner provided by the PES at NJ Institute of Technology Student Center Cafeteria.

7:00 PM – **Speaker:** A representative from PSE&G's personnel department will discuss "Your Job Interview; How to Plan and Prepare for it".

Students attending the tour will meet at the 80 Park Place entrance of the PSE&G building at 4:30.



SPOTLITE ON NORTH JERSEY

This is the first of a series of columns that is intended to shed some light on how you, a member of the North Jersey Section of IEEE, can get more benefit from your membership in this club.

Frank Relotto, one of our Members at Large, made an informal survey and concluded that there is a communication gap between the North Jersey Section Executive Committee and the members. Apparently, many members don't know what the Executive Committee is, what it does, or how it can help them. And this isn't a one way gap (did you ever hear of one of those?). The Executive Committee worries about how to motivate members and how to enlist (draft?, shanghai?) members into helping to run the section. Our technical groups put together programs, invite interesting speakers and attract a large audience of ten or twelve people. Gentlemen, there are four thousand five hundred of us out there. Is everybody watching TV? What ever happened to dedication, intellectual curiosity and the necessity to keep current in the engineering profession?

Some members have also complained that they feel alienated from IEEE, that IEEE does too little for them, and that they don't know how to change things or don't want to bother. Sure, it's frustrating trying to deal with headquarters in New York. They are policy makers, long range planners, budget makers and statistics watchers. They are not staffed up to take care of your individual problems. That is our job right here in the section. We don't really hold our meetings at 3 AM on Sunday mornings in a cave at Lake Hopatcong. Our Executive Committee does not meet behind locked doors. We try not to hiss when some plain ordinary member who is just a hard working engineer shows up to see what we do or to bitch about how we are doing it.

If you are vaguely dissatisfied about what we are doing or not doing, about what benefits you are getting from IEEE or about any aspect of your engineering profession, and if you have guts enough to talk about it rather than just sitting around and grumbling about it, come to the next meeting and speak up.

I know it's difficult to walk into a room full of strangers and start talking. That's one of the reasons for this column. We want you to get to know us as people who have the same concerns, problems and hopes as you do. We want to chop some holes in the bureaucratic barrier that seems to surround any organization. We want you to feel that you really belong to this club and have a right to use its resources for your own personal benefit.

If you want to start by talking to someone individually, call any of our officers. If you don't know any of them, call me during business hours at 465-2316. And if you just want to listen for awhile, that is O.K. too. Just look for this column in the next newsletter.

Don Bathke

Microprocessor Control On A Floppy Disc

The New York and Long Island Section of the Joint Power Engineering Society and Industry Application Society will sponsor a general meeting on Microprocessor Control on a Floppy Disk system.

Dr. Bob Borrmann, Associate Professor at Manhattan College, will discuss Floppy Disk storage and the application of microprocessor control to this new medium of mass data storage.

Time: 6 to 7:30 PM, with refreshments from 5:30 to 6 PM, Wednesday, November 16, 1977.

Place: Stone & Webster, 1 Penn Plaza, N.Y.C.

Microprocessor Technology

The New York Section of the IEEE Computer Society will, with its November 29 meeting, continue its series of meetings designed to update members with the latest microprocessor technology available from various manufacturers.

During this meeting Cary J. Ringel of Motorola will speak on the M6800 microprocessor family. This meeting is open to the public.

For further information, contact: Cary J. Ringel, Chapter Chairman, at Motorola, (201) 488-1200.

Time: 6:30 PM to 8:30 PM, Tuesday, November 29, 1977.

Place: United Engineering Center, 345 East 47th Street, N.Y.C.

Protective Relaying

The second and third meetings for the 1977-78 season of the IEEE Industrial and Commercial Power Systems Technical Discussion Group, will be held on November 17, 1977 and January 19, 1978 in the Stone & Webster Training Room on the 42nd floor of One Penn Plaza (adjacent to Penn Station), New York City, at 5:30 PM sharp. The topics of both meetings will be Protective Relaying. Members and Non-Members are invited.

The November 17th meeting will be concerned with Power Plant Relaying, touching on types of protection, types of relays, and applications of relays. The guest speaker will be D.H. Jackson who is a Consulting Engineer with Gibb & Hill, Inc. and is a member of the IEEE Relay Committee.

The January 19th meeting will be concerned with transmission line relaying, touching on definition of voltage classes, techniques for line protection, utilization of relay communication channels, channel schemes, and future applications. The guest speaker for this meeting is W.D. Connolly, a Supervising Electrical Engineer for Gibbs & Hill, Inc.

IEEE Monograph Answers Engineers' Tax Questions

"The Engineer & Federal Taxes," an analysis of the tax problems engineers can face, has been published by the IEEE through the sponsorship of the United States Activities Board.

The authors are Paul Opalack, a CPA, and Paul S. Richter, a tax and patent attorney. Each author also holds a degree in engineering. The monograph outlines the mechanics of tax returns and details the tax questions IEEE members and other engineers frequently encounter. Its intent is to "de-mystify" the inner workings of the Internal Revenue Service as it explains The Tax Reform Act of 1976, auditing processes, specific itemized deductions (e.g., educational expenses), and tax shelters.

The 44-page booklet contains information on deductions frequently overlooked by engineers. For example, the amount allowable as a deduction for pre-moving expenses, such as house-hunting trips and temporary living expenditures, is \$2,500.

Other explained deductions, with examples given, include dues paid to professional societies, such as the IEEE, business travel and entertainment expenses, home business, retirement plan, patents and royalties, prizes and awards.

The booklet also gives step-by-step advice on what to do if you are audited, including the taxpayer's rights in dealing with Revenue Agents.

The goal of this booklet is to assist the engineer without the aid of a tax expert—something that is not usually warranted by the dollar value of tax issues confronting the typical IEEE member.

"The Engineer & Federal Taxes" (UH0121-4) is published in a paper-bound format and is priced at \$3 for members of IEEE and \$6 for non-members. The booklet can be ordered postpaid from the IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854. Payment should accompany the order.

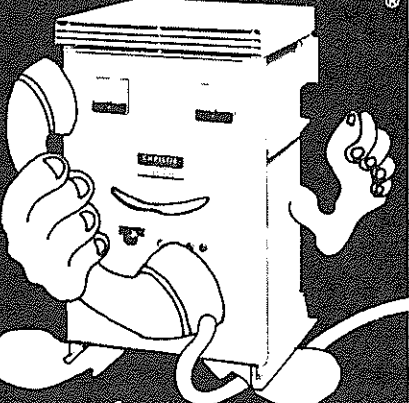
Membership News

Do you qualify for a higher membership grade? The Membership Committee will provide information and applications for Member and Senior Member grades. A list of Senior Members will soon be available to assist applicants for Senior Member grade in locating references.

The IEEE represents all Electrical and Electronic Engineers whether or not they are members but only members can participate in Technical Groups and Societies and in elections. Are you working with engineers who should be IEEE members? Contact the Membership Committee and we will send them information on the educational, technical and professional benefits of IEEE membership. If you don't know what these benefits are, we will send the literature to you also.

Submit information requests to: Don Weinstein, Kulite Semiconductor, 1039 Hoyt Ave., Ridgefield, N. J. 07657 (201) 945-3000, or Joseph W. Fink, Jr., P.S.E.&G Research Corp., 200 Boyden Ave., Maplewood, N.J. 07040, (201) 621-6800 Ext. 727.

TALK TO THE
CHRISTIE



for all you ever wanted
to know about **high current**
DC POWER SUPPLIES
BATTERY CHARGERS
Call HERMAN KUDMAN toll-free
(800) 421-2058
SINCE 1929
CHRISTIE
ELECTRIC CORP.
3412-X W 67TH ST • BOX 60020
LOS ANGELES, CALIFORNIA • 90060
(213) 750-1151 • TWX 910-321-9867