



The IEEE

Newsletter

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Volume 19 January 1973 No. 5

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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 1972-1973

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GEMB Group Meet

The Metropolitan Chapter IEEE Group in Engineering and Medicine and Biology will hold a meeting on "Experimental Myocardial Infarction in Dogs," on January 10, 1973.

Jacob I. Hirsch, M.D., Associate Professor of Medicine and Director, New York University Biomedical Engineering Training Program, will be the guest speaker.

Experimental myocardial infarction has been produced in anesthetized dogs by electrothrombosis within a branch of the coronary artery system. In contrast to clinical coronary occlusion in man, the precise time of the occlusion is thus known.

Time: Wednesday, January 10, 1973, 8:00 P.M.

Place: South Laboratory, Rockefeller University, York Ave. and 66 St., New York City.

Pre-Meeting Dinner: Tower Building Cafeteria, Rockefeller University, 6:00 P.M.

"Bioengineering in the Hospital," will be the topic discussed on February 14, 1973, by Bryan Parker, Director, Department of Bioengineering, Montefiore Hospital and Medical Center.

Airborne ECM

The Aerospace and Electronics Systems Group, Metropolitan New York-North Jersey Chapter will present Mr. Roger Busch in a talk on "Current Trends in ECM."

Mr. Busch will discuss current and projected operational requirements for

electronic countermeasures and electronic reconnaissance. The discussion will include descriptions of the types of missions flown, the types of data obtained, and the kinds of equipments (black boxes) utilized.

Mr. Busch holds a BSEE Degree from the Air Force Academy. He has had operational experience with the USAF in various ECM/ELINT aircraft. Mr. Busch is the EA-6B Program Development Manager, Grumman Aerospace Corporation.

Time: Tuesday, January 16, 8:00 P.M.

Place: ITT Defense Space Group Auditorium, 500 Washington Ave., Nutley, N.J. (main lobby entrance, near base of microwave tower)

Pre-Meeting Dinner: Copperhood Restaurant, Park Ave. at Rt. 3, Lyndhurst, N.J., 6:15 P.M.

High Voltage Distribution

The Power Engineering Society of the North Jersey Section will devote its January meeting to a seminar type program dealing with high voltage distribution. H. E. Blaicher - GPU Service Corporation, C. Moskov - Public Service Electric & Gas Company and a speaker from a neighboring utility with several years of experience with 34.5 Kv distribution systems will discuss various equipment, installation, engineering and operating problems associated with high voltage distribution.

Time: Thursday, January 18, 7:00 P.M.

Place: Public Service Electric & Gas Company, 80 Park Place, Newark, N.J., Room 3171-A.

ARPA Computer Net

The North Jersey Automatic Control Group will hear Dr. Richard M. Van Slyke discuss "Network Analysis Problems in the Design of the ARPA Computer Net."

The Advanced Research Projects Agency Computer Network is a nationwide, packet switched, telephone line tie between thirty large scale computers. Network analysis techniques developed for the throughput, cost, reliability and delay time analysis will be described.

Dr. Van Slyke received his Ph.D. in Operations Research from the University of California at Berkeley in 1965. He is vice president of the Network Analysis Corporation.

Time: Wednesday, January 17, 8:00 P.M.

Place: Bell Telephone Laboratories, Whippany Road, Whippany, N.J.

Pre-Meeting Dinner: Rod's 1890 Ranch House, Route 24, Convent Station, N.J., 6:00 P.M.

The Baritt Diode

On January 25, 1973 the North Jersey MTT/AP group of the IEEE will hold a talk entitled "The Baritt Diode - A Solid-State Microwave Source with Relatively Low Noise."

The basic theory of device operation will be examined and illustrated with a movie by Dr. D. J. Coleman of Bell Laboratories, Murray Hill, N.J.

Time: Thursday, January 25, 8:00 P.M.

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

Pre-Meeting Dinner: Copperhood Restaurant, 1 Park Ave., Lyndhurst, N.J., 6:30 P.M.

Human Reliability

The Joint Meeting of the Reliability Group and North Jersey Section will present Edward Parascos discussing "Human Reliability-Man Machine Interface."

Man machine interfaces are increasing in complexity in today's modern technology. In the past, Human

Reliability considerations have played a relatively minor role in the design of equipment. In this age of complexity, this approach is no longer adequate; it never really was. As the interaction between machines becomes more complex, a new engineering discipline, "Human Reliability" emerges.

Mr. Parascos holds a BME and MME degree from City College of New York and is a Quality Assurance and Reliability Consultant for the Con Edison Company.

Time: Tuesday, January 30, 8:00 P.M.

Place: Singer, Kearfott Division; Plant 3, Rm. 1A, 1225 McBride Ave., Little Falls, N.J.

Pre-Meeting Dinner: Bethwood, 38 Lackawanna Ave., Totowa, N.J., 6:00 P.M.

Reliability Symposium

The 1973 Annual Reliability and Maintainability Symposium will be held on January 23, 24 and 25 at the Bellevue-Stratford Hotel in Philadelphia, Penna. For information, contact: Mr. Kurt Greene, Publicity Chairman, QRC, Incorporated, 817 Silver Spring Ave., Silver Spring, Md. 20910.

Plated Wire Memory

The IEEE Magnetics Chapter - Princeton Section is sponsoring a January 10th meeting on plated wire technology. The two speakers are Dr. J. A. Sartell, Manager of the Applied Physics Department at Honeywell Corporate Research Center, Minnesota, and Mr. R. B. Fryer, also at Honeywell Corporate Research Center.

ABOUT THE TALK

Plated wire has become the preferred storage element for military and space applications. This is evidenced by the delivery of hundreds of units on such programs as Poseidon, Minuteman III, and various space applications. The main attraction of plated-wire storage is its non-destructive readout (NDRO) characteristic. Furthermore, plated wires are "hard" to radiation levels found in space. Dr. Sartell will introduce this talk with a review of these special properties. He will describe the fabrication of plated wires,

their magnetic properties, and how their switching properties are manipulated to provide the desired memory-element behavior. Mr. Fryer will then describe the incorporation of the wire into a memory-cell configuration. He will discuss the packing density, the magnetic-field characteristics required, and packaging and testing techniques.

Time: Wednesday, January 10, 8:00 P.M.

Place: Murray Hall, Rm. 218, Rutgers University, New Brunswick, N.J.

Pre-Meeting Dinner: Alumni-Faculty Club, 199 College Ave., New Brunswick, N.J., 6:00 P.M.

For Dinner Reservations Call: Mrs. Helen Yefko, Dept. of Electrical Eng., Rutgers University, (201) 247-1766, Ex. 6325.

Economics & Engineers

"Improving the Economic Status of Engineers" is the topic of a panel discussion to be presented January 27 by The Professional Engineers in Industry Section of the New Jersey Society of Professional Engineers.

Speakers at the meeting and their topics are:

"Why Do Engineers Unionize" - Mr. L. D. Chipman, P.E., Manager of Corporate Personnel and College Relations Western Electric Corp.

"Engineer-Management Professional Employment Guidelines" - Mr. Frank Hartshorne, P.E., former Chairman NSPE Pension Improvement Committee

"The Role of the Engineering School" - Mr. Richard H. Albers, Director of Placements: Newark College of Engineering

"New Jersey's Employment Program for Engineers" - Mr. Peter S. Hill, Special Assistant (to Commissioner) for Manpower, The Department of Labor and Industry

Presentations will be followed by an open discussion of questions from the audience.

Date: Saturday, January 27, 10:30 A.M.

Place: Newark College of Engineering, Seminar Room in the Faculty Center. Plenty of parking in the parking lot behind the Faculty Center off Bleeker Street.

Lunch: 12:00 to 1:00 P.M. Followed by open discussion 1:00 to 3:00 P.M.

Fee: \$8.00 which includes lunch.

IEEE AND ASME NORTH JERSEY SECTION LECTURE SERIES – SPRING 1973

The education committees of the ASME & IEEE will jointly sponsor an eight session program entitled "O.S.H.A." The lecture series is scheduled to start February 28, 1973 and end April 18, 1973.

The Instruction will be given by some of the top authorities in the various areas concerned with this course. Text material is included in registration fee.

I. Overview Introduction to O.S.H.A.

A. Federal Involvement

1. Responsibility of the employer
2. From the inspection to the citation
3. Monetary penalties

Speaker: *Mr. J. Schindler, U.S. Department of Labor*

B. State Involvement

1. As a participating State – As effective as O.S.H.A. to be accepted
2. Present regulations – Future requirements as per O.S.H.A. participations
3. Explanation of areas where most frequent violations are cited
4. What to do

Speaker: *Mr. A. Canessa, NJ Dept. of Labor & Industry*

II. Incorporation of Standards Into O.S.H.A. – How standards were written

Speaker: *Mr. N. Detarnowsky, American National Standards Institute*

III. Executive Management & Supervisor Responsibility in Safety & Health – Corporate Involvement

- A. Management Policy & Active Participation
- B. Supervisory Education & Training
- C. Safety Inspection – Unsafe Conditions & Unsafe practices

Speaker: *Mr. H. Eiermann Jr., S.C.M. Corporation*

IV. Organization & Development of Safety Programs

- A. Safety Committees
- B. Accident Investigations

C. Employee Education Posters, etc.

D. Planning for Emergencies

E. Analysis of Accidents

Speaker: *Mr. A. Canessa, NJ Dept. of Labor & Industry, Mr. H. Eiermann Jr., S.C.M. Corporation*

V. Occupational Environmental Health Aspects – Industrial Hygiene Field

- A. Overview of Occupational Health
- B. O.S.H.A. Standards on Occupational Health
- C. Are You In Compliance
- D. What you can do

Speaker: *Mr. G. Stanton, NJ Dept of Labor & Industry, Mr. F. Warden, Western Electric Co.*

VI. Electrical Safety

- A. General Code Rules
- B. Overcurrent Protection
- C. Grounding
- D. Flexible Cords

Speaker: *Mr. A. Cartal, Middle Dept. Inspection Agency*

VII. Related Aspects of Federal Regulations toward Product Safety & Environment

- A. Consumer Safety Act of 1972
- B. Problems of Pollution – Solid Wastes Air, Water

Speaker: *Mr. V. M. Evers, Western Electric Co.*

VIII. Material Handling & Machine Safeguarding Significance & Ways to Control Material Handling & Machine Accidents

Speaker: *Mr. J. Marcel, Chubb & Sons*

Time: 7:00 – 9:00 PM, Wednesday Evenings Starting February 28, 1973 and ending April 18, 1973.

Place: To be announced in near future

Information: For additional information contact: Frank Gialanella, Automatic Switch Co., 6 Watsessing Avenue, Bloomfield, N.J. 07104. Phone 201-481-3100.

REGISTRATION FORM – O.S.H.A. LECTURE SERIES

Send to: Mr. S. Salvatore, Wilbur B. Driver Co., 241 Oraton St., Newark, N.J. 07104

Name _____

Tech. Society _____

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Position _____

Business Address _____

Phone _____

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Phone _____

Check or money order enclosed –

___ Member – \$50 – Registration Prior to February 14 – \$45

___ Non-member – \$60 – Registration Prior to February 14 – \$55

Please make check or money order payable to: NORTH JERSEY SECTION ASME

FELLOWS NIGHT, DINNER-DANCE

North Jersey Section IEEE

Saturday, February 24, 1973

7:00 P.M. (cocktail hour 6:00-7:00) Dancing 9:00 P.M.-1:00 A.M.

Governor Morris Inn

Morristown, N.J.

Dr. Mauro H. Zambuto; Dinner Speaker

Use the form below for reservations enclosing a stamped, self-addressed envelope. Reservations received after February 17 or without an enclosed envelope will be held at the door along with telephoned reservations by calling (201) 833-1787 or (201) 645-5492/ 5472.

Harlan J. Perlis, Dinner Chairman
791 Hartwell St., Teaneck, N.J. 07666

Please forward _____ tickets at \$10.00 each (make checks payable to North Jersey Section IEEE) to:

Name _____

Address _____

City _____

State _____ ZIP _____

I would like to share a table (seating 10) with the following:

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Act of October 23, 1962; Section 4369, Title 39, United States Code)

1. TITLE OF PUBLICATION: The IEEE Newsletter; 2. DATE OF FILING: October 1, 1972; 3. FREQUENCY OF PUBLICATION: Monthly except June and July; 4. LOCATION OF KNOWN OFFICE OF PUBLICATION: 399 Howard Boulevard, Mt. Arlington, Morris County, N. J. 07856; 5. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS: 399 Howard Boulevard, Mt. Arlington, Morris County, N. J. 07856; 6. NAMES AND ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR: Publisher, North Jersey Section IEEE, 399 Howard Boulevard, Mt. Arlington, N. J. 07856; Editor, Ray Dusault, 59 S. Wyoming Avenue, South Orange, N. J.; Manager Editor, M. M. Perugini, Box 111, Mt. Arlington, N. J. 07856; 7. OWNER: North Jersey Section of the IEEE, 399 Howard Boulevard, Mt. Arlington, N. J. 07856; 8. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BONDS, MORTGAGES OR OTHER SECURITIES: None.

CIRCULATION STATEMENT

	Average Prec. 12 months	Issue Nearest Filing Date
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Paid Circulation		
Other Than Mail Subscriptions	None	None
Mail Subscriptions	5357	5256
Total Paid Circulation	5357	5256
Free Distribution	36	31
Total Distribution	5393	5287
Office Use, Left-Over, Unaccounted, Spoiled	457	213
TOTAL	5850	5500

I certify that the statements made by me are correct and complete.

M. M. Perugini

Student's Night: Engineering Opportunities

The North Jersey Section will hold its Eighth Annual Students' Night hosted by the Fairleigh Dickinson University IEEE Student Chapter at the Teaneck Campus of Fairleigh Dickinson University on Wednesday, February 7, 1973.

The theme will be "Trends in Engineering Opportunities." The present day graduate from an electrical engineering or technology program is no longer being deluged with job offers. It, therefore, becomes important for students to very wisely choose areas of specialization so that they coincide with future needs in our society. Instead of passively waiting for campus interviews, a graduating student should be actively making applications to companies that show future promise. One of the ways to find out about these opportunities is to attend IEEE meetings of this type.

Recent graduates will present their views and ideas concerning their areas of expertise. A question and answer period will follow.

Any IEEE student member and date is invited. The total cost, fifty cents, includes a full course dinner, door prizes and some very interesting information. Tickets will be available through IEEE local branch officers.

Time: Wednesday, February 7, 7:30 P.M.

Place: Becton Hall Auditorium, Fairleigh Dickinson University, Teaneck, N.J.

Pre-Meeting Dinner: Student Common Building, FDU, Teaneck, 6:30 P.M.

Automatic Instrument Testing Seminar

The New York Joint Chapter on Instrumentation & Measurements is sponsoring an all-day seminar on Automatic Instrument Testing which will be held at Newark College of Engineering on April 24, 1973.

Time: Tuesday, April 24, 9:00 A.M. to 4:00 P.M.

Place: Alumni Center, Newark College of Engineering, 323 High Street, Newark, N.J.

Visit to Weather Radar

The IEEE Metropolitan Group on Vehicular Technology is sponsoring an inspection of a weather radar on Wednesday, January 17th. The tour will also include the 162.55 MHZ weather radio broadcast facilities.

Since the number of visitors is limited to 15, *advance reservations are required*. Reservations may be made by calling or writing Leo G. Sands, (212) 697-0235, 250 Park Ave., New York City, 10017.

Time: Wednesday, January 17, 1:30 P.M.

Place: National Weather Service Office, RCA Building, 30 Rockefeller Plaza, New York, N.Y.

Hearing Loss Modeling

The Metropolitan New York Joint Chapter of the Circuit and Systems Society will hold its next meeting on Wednesday, January 24, 1973. Lt. Tom Giordano will discuss "Circuits and Systems Approach to Modeling Permanent Hearing Loss."

Lt. Giordano, of the U.S. Army Signal Corps, is currently doing research in hearing loss at Fort Monmouth.

Time: Wednesday, January 24, 8:00 P.M.

Place: Rogers Hall, (room no. posted in lobby) Polytechnic Institute of Brooklyn, 333 Jay St., Brooklyn, N.Y. (parking garage directly across from Rogers Hall.)

Future Engineer Shortage?

The Power and Industrial Division of the New York Section will hold a General Meeting on Wednesday, January 17, 1973. Mr. Micola Cinosi, an Economist with the Bureau of Labor & Statistics, U.S. Department of Labor and Mr. Wesley J. Hennessy, the Dean of Engineering of Columbia University, will discuss "U.S. Engineering Manpower Requirements through 1980."

Please Note: A future meeting on "Mini Computers" is scheduled for February 21, 1973.

Time: Wednesday, January 17, 6:30 P.M. (refreshments, 6-6:30 P.M.)

Place: Consolidated Edison Company, 4 Irving Place, New York, N.Y.

IEEE New York Communications Society Lecture Series—Winter 1973 COMMUNICATION SATELLITE SCENE

Place: Little Theater, N.Y. Telephone Company, 140 West Street, New York, New York

Time: 6:30 to 8:30 PM

The series of lectures will cover various aspects of satellite communications, presented by speakers who are directly involved with current planning and problem solving in this field.

1. **January 18 - Policies and Economics** - by *W. Hinchman, Office of Telecommunications Policy*.
2. **January 25 - Economic Considerations - Owner's View** - by *D. Kane, General Electric*.
3. **February 1 - Interface: Satellite to Exchange Network** - by *G. Dill, COMSAT*.
4. **February 8 - Delay Aspects** - by *S. J. Campanella, COMSAT*.
5. **February 15 - Economic Considerations - Common Carrier Viewpoint** - by *L. Zahalka, GTE Services Corporation*.
6. **February 22 - Title to be announced later** - by *speaker from Western Union Telegraph*.

STUDY GROUP LECTURE SERIES—REGISTRATION FORM

Send To: Mr. J. J. Doyle, N.Y. Telephone Co., 36th Floor
1411 Broadway, New York, N.Y. 10018

Fees: IEEE Members: \$20.00 Non-members: \$25.00*

Name _____

Firm _____

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Enclosed is a check for \$_____ . Please enroll me in the Study Group Lecture Series.

*Five dollars of the non-members fee will be applied toward an IEEE membership on request during the lecture series.

Make checks payable to "IEEE Comsoc, N.Y."

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IEEE New York Communications Society
LECTURE SERIES — WINTER & SPRING 1973
TELEPHONE SWITCHING SYSTEMS & COMPONENTS

Part II

Lecture 7— Engineering Crossbar Community Dial Offices End Office Features— January 16, 1973

by E. Finnerty, Sales Engineer, NEC America, New York, N. Y.

Lecture 8— Engineering a Step-By-Step CDO— January 23, 1973

by J. Tompkinson, Development Engineer, Stromberg Carlson Corp., Rochester, N. Y.

Lecture 9— Engineering of Pentaconta A—1 System — January 30, 1973

by Ray Kohoutek, ITT Telecommunications

Lecture 10 & 11— Engineering Centrex CO and CU — February 6, 13, 1973

Richard Nichols, ITT Telecomm.

Lecture 12— Automatic Message Accounting— February 20, 1973

by D. Brewin, Stromberg Carlson Corp.

Part III

Lecture 13 & 14— Crossreed Central Offices—Design and Systems Considerations — March 20, 27, 1973

by S. L. Soni, Stromberg Carlson Corp.

Lecture 15—Equipment Engineering for Crossreed Central Offices—April 3, 1973

by C. W. Egberts, Stromberg Carlson

Lecture 16— Principles of Pulse Code Modulation and Time Division Switching— April 10, 1973

by P. Kavanaugh, Stromberg Carlson Corp.

Lecture 17— Application of PCM to Integrated Systems— April 17, 1973

by W. Steward, Stromberg Carlson Corp.

Lecture 18— DEX 1. A Stored Program Electronic Switching System for Large Offices— April 24, 1973

by Dr. K. Muroga, Nippon Electric, Tokyo, Japan

Place: Little Theater, New York Telephone Co., 140 West Street, New York, N. Y. *Time:* 6:30 to 8:30 PM

TELEPHONE SWITCHING SYSTEMS & COMPONENTS LECTURE SERIES 1972-'73

SEND TO: *Mr. K. K. Clarke, Clarke-Hess Communication Corp.*
43 West 16th Street, New York, New York 10011

Fee: \$20 for Part II or III — Member IEEE

\$25 for Part II or III — Non-Member

Name _____ **Position** _____

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Enclosed is a Check for \$ _____ Please enroll me for Parts II III

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Power and Industrial Div.

EDUCATIONAL PROGRAM

SPRING 1973



REVIEW STUDY GROUPS — FOR PROFESSIONAL ENGINEER EXAMINATIONS

This program is designed to prepare candidates for Professional Engineering License examinations in New York and New Jersey. The material is consistent with the national type of exam used for the New York license examinations. Candidates for Part I and Part II should enroll in Study Group No. 10, No. 11 & No. 12. The New York State Board permits graduates of approved schools to take Parts I and II and qualify for "Engineering-in-Training." New York exams will be held in April, 1973 and December, 1973. Please note that the spring course will be completed prior to the April exam.

ENDORSED BY NYSSPE

BASIC ENGINEERING SCIENCES I (IEEE-ASME)

STUDY GROUP NO.10

Review for Part I and Part II, N. Y. Exam. Review will cover practical applications of Statics, Mechanics, and Mathematics.

MONDAYS, Starting January 8, 1973, 6:15-8:45 P.M., 12 Sessions

Instructor: O. Ondra, P.E., Professor of Civil Engineering

Auditorium, 19th Fl., Consolidated Edison Co., 4 Irving Place, N.Y.C.

Manhattan College

BASIC ENGINEERING SCIENCES II (ASME-IEEE)

STUDY GROUP NO.11

Review for Part I and Part II, N. Y. Exam. Review will cover practical applications of Dynamics, Fluid Mechanics, Thermodynamics, and Electrical Principles.

TUESDAYS, Starting January 2, 1973, 6:30-9:00 P.M., 14 Sessions

Instructor: P. Szabados, P.E.

Room 1701, Consolidated Edison Co., 4 Irving Place, N.Y.C.

Consolidated Edison Co.

ENGINEERING ECONOMICS AND PRACTICE (IEEE-ASME)

STUDY GROUP NO.12

Review for Engineering Economics for all three sections of the exam. Review will cover economic comparisons, annual cost, present worth, and rate of return. Fixed and operating costs, accounting and cost analysis, depreciation, taxes and valuations will also be reviewed.

THURSDAYS, Starting January 4, 1973, 6:30-9:00 P.M., 12 Sessions

Instructor: R. E. Mendoza, P.E.

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

Public Service E. & G. of N. J.

MECHANICAL ENGINEERING (ASME)

STUDY GROUP NO.13

Review for Mechanical Engineering Section of Part III, N. Y. Exam. Application of mechanical engineering principles to combustion, gas dynamics, compression shock, nozzle design, steam power plant cycles, psychrometrics, air conditioning heat transfer, nuclear reactors, Mach cone, Kinetics, gyroscope motion, vibratory motion, balancing of machines, compound shafts, design of gears, hydraulics, pumps and fans, stress and deformation of machine elements, etc.

WEDNESDAYS, Starting January 3, 1973, 6:30-9:30 P.M., 14 Sessions

Instructor: M. Kurtz, P.E.

Room 1701, Consolidated Edison Co., 4 Irving Place, N.Y.C.

Consulting Engineer

ELECTRICAL ENGINEERING AND APPLICATIONS (IEEE)

STUDY GROUP NO.14

Review for Electrical Engineering Section of Part III, N.Y. Exam. Electrical Engineering Principles and Applications of: transformers a-c and d-c machines, transmission lines, filters, wave guides, networks, impedance matching, bridges, coupled circuits, resonance, harmonics, transients, three-phase power, amplifiers, electronic circuits. Root locus and Routh Criteria.

WEDNESDAYS, Starting January 3, 1973, 6:30-9:00 P.M., 12 Sessions

Instructors: L.E. Burnett, P.E., PASNY

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

S. Sonsky, P.E., Queensborough Community College

REGISTRATION INFORMATION

GROUPS #	FEE PER GROUP	PAYABLE TO	MAIL TO
10, 12	\$30 each for Members, IEEE, ASME, NYSSPE; \$40 each for all others	"POWER & IND. GROUP N. Y. SECTION IEEE"	<i>I. M. Berger</i> , Vice Chairman Educational Committee, IEEE N.Y.C. Transit Authority, Rm. 1200 370 Jay St., Brooklyn, N. Y. 11201 Phone: (212) 852-5000, Ext. 4495
14	\$50 each for Members, IEEE, ASME, NYSSPE; \$60 each for all others		
11, 13	\$30 each for Members, IEEE, ASME, NYSSPE; \$40 each for all others	"ASME METROPOLITAN SECTION"	<i>Thomas Gucciardo</i> , Educational Comm. ASME, Metropolitan Section N.Y.C. Health & Hospital Corp. Bureau of Engineering & Maintenance 66 Leonard St., N. Y., N. Y. 10013 Phone: (212) 566-6940
15, 16, 17, 18, 19	\$25 each for Members, IEEE, ASME, NYSSPE; \$35 each for all others	"POWER & IND. GROUP N. Y. SECTION IEEE"	<i>Harry Johnson</i> , Vice Chairman Educational Committee, IEEE Automatic Switch Co. 95 River Street, Hoboken, N.J. 07030 Phone: (201)-966-2109

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N. Y. Section, IEEE



Power and Industrial Div.

EDUCATIONAL PROGRAM SPRING 1973

Metropolitan Section



ASME

- REVIEW STUDY GROUPS FOR PROFESSIONAL ENGINEERING EXAMINATION STARTING JANUARY 2, 1973 (Details on previous page)

- SPECIAL STUDY GROUPS STARTING FEBRUARY 26, 1973 (See below)
(A more detailed special study program will be published in January 1973)

STUDY GROUP NO. 15—ELECTRIC POWER UTILITIES & THE ENVIRONMENT

MONDAYS, 6:30-8:30 P.M., 10 lectures (starting Feb. 26, 1973)

Consolidated Edison Co., Room 1701, 4 Irving Place, New York, N.Y.

Group Sponsor: Fred Kresse, Consolidated Edison Co., Tel. (212) 460-4214

STUDY GROUP NO. 16—MODERN AUTOMATIC CONTROL SYSTEMS II

TUESDAYS, 6:30-8:30 P.M., 10 lectures (starting Feb. 27, 1973)

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

Group Sponsor: Gerald Ryff, Consolidated Edison Co., Tel. (212) 460-3983

STUDY GROUP NO. 17—FUNDAMENTALS OF ELECTRICAL DESIGN

WEDNESDAYS, 6:30-8:30 P.M., 10 lectures (starting Feb. 28, 1973)

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

Group Sponsor: John Domorski, Automatic Switch Co., Tel. (212) 344-3765

STUDY GROUP NO. 18—PROBLEM SOLVING WITH COMPUTERS

WEDNESDAYS, 6:30-8:30 P.M., 10 lectures (starting Feb. 28, 1973)

Consolidated Edison Co., Room 1701, 4 Irving Place, New York, N.Y.

Group Sponsor: David Hawkins, Consolidated Edison Co., Tel. (212) 460-2650

STUDY GROUP NO. 19—A LAW COURSE FOR ENGINEERS

THURSDAYS, 6:30-8:30 P.M., 10 lectures (starting March 1, 1973)

Consolidated Edison Co., Room 1701, 4 Irving Place, New York, N.Y.

Group Sponsor: Kent Weytzel, Westinghouse Electric Corp., Tel. (212) 692-3613

REGISTRATION FORM

Name (printed)
Firm Position
Business Address
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Home Address

Study Group
Member of:
☐ IEEE
☐ ASME
☐ OTHER
☐ NON-MEMBER
Membership
No.

(Do Not Write In This Space)
Admission Card No.
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Date By

Note: See Registration Information for Checks

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Business Address
Phone No.
Home Address

Study Group
Member of:
☐ IEEE
☐ ASME
☐ OTHER
☐ NON-MEMBER
Membership
No.

(Do Not Write In This Space)
Admission Card No.
Refund Certificate No.
Fee Paid \$ (Cash, Check, M.O.)
Date By

Note: See Registration Information for Checks

North Jersey Section

NEWSLETTER



JANUARY, 1973

Volume 13 — No. 4

THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS



Season's Greetings!

Best Wishes for a Happy and Healthy Coming Year

Members "take 5" from North Jersey Section Executive Committee Meeting. Left to right, standing: Ferdinand Scerbo, Morris Subsection Treasurer; Louis Sonz, Member & Past Director; James Pritchard, Morris Vice Chairman; Brian Boden, Section Director Education and Student Affairs; Allan Kishpaugh, Section Director Publicity & Newsletter. Seated: Robert M. Welch, Section Director Programming; Peter Rosoff, Section Secretary; Herbert S. Arnold, Jr., Section Chairman; Joseph Brozina, Section Treasurer; William R. Baldwin, Section Director Ex-Officio.

CELEBRATE ENGINEERS' WEEK

"Engineering . . . A Better Environment Through Technology"

DATE: Wednesday, February 21, 1973

TIME: 6:30 P.M. (Cocktail Reception — Cash Bar — Hot Hors d'Oeuvres)

Meet A.S.M.E. President, Dr. Richard G. Folsom

7:30 P.M. Dinner — Prime Rib

9:00 P.M. Guest Speaker — Mr. Kenneth L. Johnson,
Director, Division of Air and Water Programs,
Environmental Protection Agency, Region II

PLACE: The Friar Tuck

Route 23

Cedar Grove, N. J.

PRICE: \$9.00 for One Person

\$8.00 for Spouse or Date

MARK YOUR CALENDAR FOR FEBRUARY 21, 1973 !!!

BRING YOUR SPOUSE OR DATE

Make check or money order payable to:

A.S.M.E. North Jersey Section

Mail remittance with ticket request form to:

Mr. Burghard Ruterbories
Esso Research and Engineering Co.
P. O. Box 101
Florham Park, New Jersey 07932

Engineers' Week Dinner Meeting Ticket Request Form

Name

Address

Business Phone Home Phone

Number of Tickets Desired

Amount of Check or Money Order Enclosed

NORTH JERSEY SECTION NEWSLETTER

Published in September, October, November, January, February, March, April and May, by the ASME, North Jersey Section.
The Constitution, By-Laws, and Rules of the ASME, Article C5,

Sec. 2: The Provisions of the Constitution, By-Laws, and Rules of the Society shall govern the procedure of all components of the Society, but no action or obligation of such components shall be considered an action or obligation of the Society as a whole.

ASME NOTICE

North Jersey Section

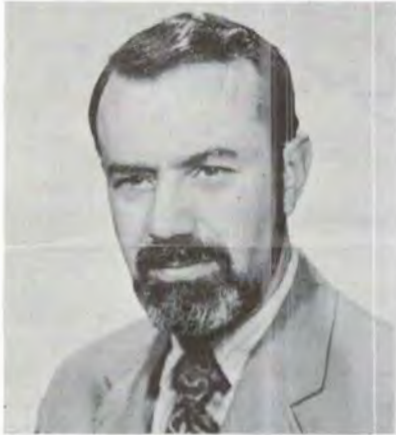
The American Society of Mechanical Engineers



MORRIS SUBSECTION MEETING

Joint Meeting with Morris County Chapter of N.J.S.P.E.

THE WANKEL ENGINE WHAT MAKES IT TICK



SPEAKER: William B. Silvestri, Jr.
Project Center Manager
Rotating Combustion Engine Facility
Curtiss-Wright Corporation
Wood-Ridge, New Jersey

Mr. Silvestri is Project Center Manager, Surface Applications, of the Rotating Combustion Engine Facility at Curtiss-Wright Corporation. He has fifteen years experience with Curtiss-Wright in powerplant development: five years on turbojets and ten years on Rotating Combustion Engines, including test engineering, project engineering and program management. Mr. Silvestri has an M.E. degree from Stevens Institute of Technology and did graduate work at Bernard Baruch School of Business.

PROGRAM: Mr. Silvestri will present the general engineering aspects of the Wankel engine and show why it should become the powerplant of tomorrow. His lecture will be illustrated with a movie, numerous slides, sketches and some hardware. A question and answer period will follow the conclusion of the talk.

Refreshments will be served.

DATE: Thursday, January 25, 1973

TIME: 8:00 P.M.

PLACE: Interpace Corp.
Cherry Hill Road, Parsippany, N. J.

Reservations are not required.

MEETING CHAIRMAN: Arnold E. Pristernik
201 - 256-4000 x 5414 (Work)
201 - 627-8647 (Home)



1973 Annual Reliability and Maintainability Symposium "ASSURANCE TECHNOLOGIES— MAKING THEM PAY"

JANUARY 23, 24, 25, 1973

BELLEVUE - STRATFORD HOTEL, Philadelphia, Pa.

Topics include: Land Vehicle Reliability and Maintainability; Bayesian Debate; Environmental Acceptance Tests, A Last Chance for Reliability; Simultaneous Paper Session; Medical Mini Forum and Tour; Mechanical Reliability; Airborne VS. Ground Checkout Trade-offs; Logistics; Maintainability; Parts Reliability; Cost Modeling; Safety; The Role of Product Specification in Assuring Material Properties; Product Liability; Computer Applications; Quality Assurance of Structural Materials; International; Math Modeling Techniques; A.I.A.A. System Effectiveness Task Report; Atomic Energy Safety and Tutorial.

Sponsored by: ASME, ASQC, IEEE, IES, AIAA, AIIE, SAE, ASM

Registration fee: \$40.00 to Members; \$50.00 Non-Members.

For advance registration or additional information, contact: Mr. Kurt Greene, QRC, Incorporated, 817 Silver Spring Ave., Silver Spring, Md. 20910.

READING TIME: .75 MINUTES IMPACT DURATION: 3 YEARS

Opportunity is again yours to nominate members to carry on for those Directors of the North Jersey Section Executive Committee who are now completing their three-year term of service. Those proposed will be evaluated by the Nominating Committee. Candidates with the most to offer the Section will be placed on the slate to be presented to the membership. Often the committee's job is made difficult by the lack of willing prospects to assume the open positions. We would prefer to be in the position of selecting from several rather than from reluctant or non-existing potential candidates.

You can help the committee, the democratic process, and your society by being alert for active clear-thinking dynamic members, soliciting their involvement and proposing their candidacy. Call Bill Baldwin 201 - 539-6111 x 662 (Office) or 201 - 377-8983 (Home).

• PLEASE POST •

ASME NOTICE

North Jersey Section



The American Society of Mechanical Engineers

BERGEN - PASSAIC SUBSECTION MEETING

MENNEN COMPANY TOUR

The Mennen Company is a family owned company and will be 100 years old in 1978. It is an international company with plants in U.S.A., Canada, Mexico, and Venezuela. The corporate office and factory is in Morristown, N. J. The major product is toiletries.

The program will include a guided tour of the plant and processes for mixing operations, handling and filling operations, charging aerosol containers operations, labeling and printing operations and automated packaging. Coffee will be served by the Mennen Company after the tour.

DATE: Thursday, January 18, 1973

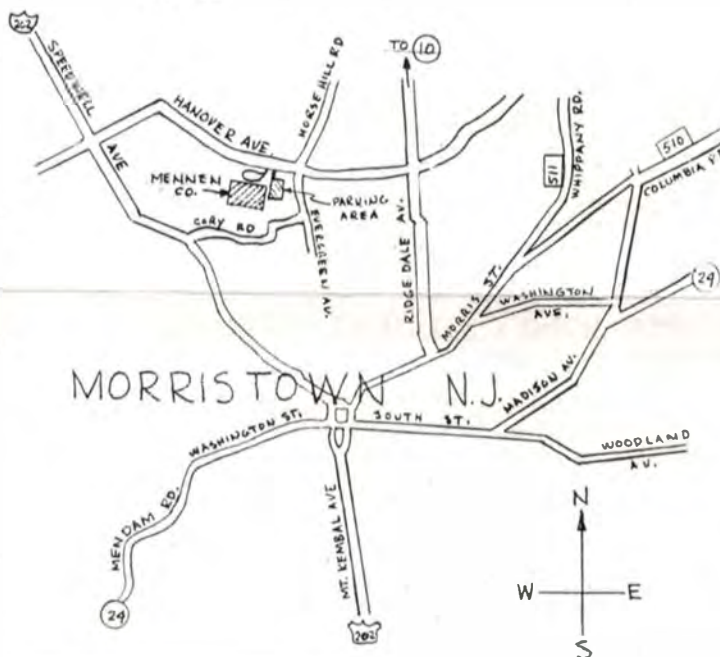
TIME: 8:00 P.M.

PLACE: Hanover Avenue, Morristown, N. J.

Reservations required by January 15, 1973

Use return post card

MEETING CHAIRMAN: Beal P. Moore
201 - 539-5500 x 329



ESSEX - HUDSON SUBSECTION MEETING

PRODUCT LIABILITY PREVENTION

And What Engineering Can Do About It

Speaker: John Mihalasky, *Professor of Industrial Engineering, Newark College of Engineering*

John Mihalasky was Program Chairman for the 3rd annual National Conference on Product Liability Prevention held August 23-25, 1972, at N.C.E. The theme of the conference was "Let the Vendor Prepare." John was also active in the 1970 and 1971 Product Liability Prevention Conferences. He is a Professor of Industrial Engineering at N.C.E. and he has had many years of management and engineering experience. He is the author of numerous articles. John is an active senior member of A.S.M.E., a Fellow in the American Society for Quality Control, a Life Fellow in the Society for Advancement of Management, and he is active in several other professional societies.

Program: Product liability suits have been dramatically on the increase due to a change in the law, and a change in the consumer's attitude. What is the Engineer's exposure to liability action in this "age of consumerism?" Find out what techniques, methods and approaches the design engineer can employ to prevent his product's liability exposure.

DATE: Tuesday, January 30, 1973

TIME: 6:00 P.M. Cocktails — Dutch Treat

6:30 P.M. Dinner — Roast Beef @ \$4.00

7:45 P.M. Meeting

PLACE: Rock Spring Inn

481 Northfield Road, West Orange, N. J.

Reservations by January 29th are required.

Use return post card or call Meeting Chairman,

Douglas P. Roome 201 - 471-6200 (Office)

201 - 239-4013 (Home)



• PLEASE POST •

RESUME SEMINAR AT STEVENS

On October 30, Walter P. Hawk of Brentwood Professional Placement spoke at Stevens on resumes and placement interviews. He spoke quite amusingly of the "what nots" in resume writing giving various examples from his personal experience. Also, a sample resume was distributed to serve as a general guide for our own ventures. Bombarded by questions concerning this year's job trends for graduating seniors, he was leery about predictions but seemed to lean towards an upward trend in the job market.

The A.S.M.E. Seminar at Stevens was of interest and open to the junior and senior classes as opposed to only A.S.M.E. members. This indicates the new trend of the organization at Stevens in which the chapter is trying to be of service to the Stevens community, and not just a specific engineering discipline. In this way the Stevens Chapter hopes to serve the whole school, an idea which we hope would be universally adopted.

LAWRENCE L. BUTTERWORTH
Chairman, Stevens Student Chapter

NORTH JERSEY STUDENT SECTIONS ALIVE AND WELL

A.S.M.E. student sections of Fairleigh Dickinson University, Newark College of Engineering, and Stevens Institute of Technology are working with the North Jersey Section to provide area students with an active year. Ron Enger is Chairman of the Student Affairs Committee.

Your Section is offering students several field trips, including jet engine manufacturing plants and generating stations with major components (boiler, turbine, generator) open for inspection. The BASIC ENGINEERING HARDWARE course was offered free to students as an experiment and student enrollment jumped from the usual zero to over twenty-five! Other courses or seminars that will be given either specifically for or available to students include BIOENGINEERING, SALES ENGINEERING, P.E. (N.J.) seminar, and possibly others.

The highlight of the year may be the meeting planned for this Spring, conceived along the same lines as the famous Rustic Lodge meeting two years ago. Directed primarily at students and younger engineers, it will provide wide-open dialogue between them and National and No. Jersey A.S.M.E. officers. Because of the current interest in what A.S.M.E. is and what it should be, this upcoming meeting, like its predecessor, is expected to produce few dull moments.

\$500 REWARD

The 1973 Williston-Main Awards Contest with First Prize Arnold L. Williston Medal, \$500 honorarium and Williston Certificate, and Second Prize Charles T. Main Award of \$250 with certificate has been announced by the A.S.M.E. General Awards Committee. Student Members and Associate Members who received their degree not more than two years before April 15, 1973 (the deadline for entry) are eligible.

To win, the contestant must submit a paper of 2,000 words minimum describing a major ecological problem affecting one specific region, area, or city and mechanical engineering means to alleviate the problem including recommendations. Both winners will be provided transportation and expenses to the A.S.M.E. Winter Annual Meeting in Detroit in 1973, and resumes of their papers will be published in Mechanical Engineering Magazine or pamphlet form.

Interested persons are invited to request the 1973 Williston-Main Awards Contest circular with full details from Clarence E. Davies, A.S.M.E. Honors, 345 East 47th St., New York, N.Y. 10017. Phone 212 - 752-6800 ext. 346.

P.E. LICENSE COURSE

A review course for the New Jersey Professional Engineer's License is being considered by the Section Education Committee. Evening and correspondence courses are under consideration. If you are interested in either, please indicate your preference on the enclosed reply post card. Be sure to fill in your address so you may be notified of developments. Your response will greatly assist the planners.

O.S.H.A.

The Occupational Safety and Health Act of 1970 will begin to have great impact within New Jersey January 1, 1973. The Section Education Committee is planning a course to be jointly sponsored with I.E.E.E. and offered in March.

ACTIVE CONTINUING EDUCATION PROGRAM

The North Jersey A.S.M.E. Education Committee is well into an active continuing education program. By the time you read this, the very successful BASIC ENGINEERING HARDWARE course will be more than half over. Led by overall coordinator and Education Committee Co-Chairman, Gary Harpster, this course enjoyed enrollment by many engineers in a wide variety of disciplines and industries, and by an unprecedented number of student members. Individual sessions were coordinated by Brian Boden, Dan Fiore, Gary Harpster, Tom Snyder, and Charles "Ned" Wagner.

On tap are more activities. Fred Scerbo and Jim Pritchard are developing a program about P.E. (N.J.). Sam Salvatore is working with I.E.E.E. on a multi-session course on what O.S.H.A. is all about. G. "Jerry" Foley, the other Education Committee Co-Chairman, is developing a course on SALES ENGINEERING. A seminar on BIOENGINEERING will be given soon, and Louie Sonz is coordinating an improved version of last year's popular BASIC FORTRAN course. The FORTRAN course may be given during days instead of evenings.

Course coordinators work with speakers to scope, schedule, and guide courses like the ones listed above. The workload isn't crushing, but the difference between a successful, worthwhile presentation and misguided "bomb" is largely the result of the efforts of these volunteers, who cheerfully make a challenging balancing act look easy to those who take the courses.

People who have ideas or questions about the forementioned or other courses are asked to contact Brian Boden (201 - 622-7000, ext. 3935 or 3936) because feedback and comments are genuinely appreciated and have quite an impact on the final form of a presentation. Of course there's always the chance you may find yourself volunteering to help or be a coordinator. Any takers?

Woman's Auxiliary . . .

FEBRUARY MEETING

Far Away Places

The Metropolitan Section of the Woman's Auxiliary, A.S.M.E., will hold their February meeting at the Engineering Woman's Club, 137 East 36th Street, Apt. 5A, New York City, on Thursday, February 21, 1973, at twelve o'clock. Come and join us with your friends for luncheon and an interesting program, "Far Away Places," that some of our members have visited recently.

For reservations please contact Mrs. C. R. Mockridge, 24 Coeyman Avenue, Nutley, N. J. 07110. Tel.: 201 - 667-8076.