



The IEEE

Newsletter

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Published monthly September thru May by the North Jersey Section of the Institute of Electrical & Electronics Engineers, Inc. Office of Publications: 399 Howard Boulevard, Mount Arlington, N.J. 07856

Volume 20 December 1973 Number 4

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Newsletter Deadline

Deadline for receipt of material is the 20th of the second month preceding month of publication. All communications concerning the Newsletter including editorial matter, advertising, and mailing, should be addressed to: The NEWSLETTER, c/o Girard Associates, Inc., P. O. Box 111, Mt. Arlington, N. J. 07856, Phone: 398-5524.

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

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

REPORT ALL ADDRESS CHANGES TO:
Institute of Electrical and Electronics
Engineers, Inc., 345 East 47th Street
New York, N. Y. 10017

It is not necessary to inform the North Jersey Section when you change your mailing address. The NEWSLETTER and other section mailings use a list provided by IEEE's national headquarters in New York. This means the Section has no need to maintain a mailing list or addressing plates. Section membership records are changed when Headquarters notifies us.

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ABOUT CNI SYSTEMS

The December 11th meeting of the New York/ North Jersey Chapters of Aerospace & Electronic Systems Society and Communications Society will include a NASA color film and a talk by Mr. Jack Rubin, CNI Systems Engineering, ITT Avionics on Pros and Cons of Integrated Communication, Navigation and Identification Systems.

Mr. Rubin is Engineering Project Manager for the Navy's Integrated Tactical Air Control System (ITACS) Demonstration Experiment Program currently under hardware development at the ITT Avionics Division. For the past five years, he has been involved in various phases of ICNI system definition and development under both Navy and Air Force contracts. Prior to joining ITT, Mr. Rubin was employed by the GPL Division of Singer/General Precision, where he was engaged in analytical studies of integrated doppler-inertial navigation systems. Mr. Rubin received the BEE degree from City College of New York in 1963, and the MEE degree from New York University in 1964.

Time: 8:00 P.M., Tuesday, December 11, 1973

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, 1 Park Ave., Lyndhurst, N.J. (just south of Rt. 3) 6:15 P.M.

FLIGHT CONTROL TECHNOLOGY

The North Jersey Control Systems Society will sponsor a presentation of present day flight control technology for advanced aircraft. The speaker will be Mr. Jerry Doniger, who is Assistant Chief Engineer at the Navigation and Control Division of the Bendix Corporation.

The presentation will cover increased requirements for dynamic controls versus overall cost effectiveness, as well as solutions to problems encountered in controlling more aerodynamically unstable, but highly efficient, aircraft.

Mr. Doniger is widely known and respected in the field of automatic and manual flight control of both military and commercial aircraft. He has been involved in systems design for use on the 707, 747, C-141, and DC-10, as well as in the development of redundant control augmentation.

Time: 8:00 P.M., Wednesday, December 12, 1973

Place: Bendix Corporation, Plant # 1, Cafeteria, Teterboro, New Jersey

Students' Night—Wednesday, Feb. 6

Student Center, Newark College of Engineering

Buffet dinner (\$0.50)

Door prizes

Speaker & discussions

Details in January "Newsletter"

In our November story on Student Activities, we failed to list all the judges for the 1973 Student Paper Contest. The complete roster of judges is: Messrs. W. J. Carroll (New York Telephone Co.), J. F. Connolly (Western Electric), L. D. Kovach (County College of Morris), H. Matcha (Matcha Machinery Co.), J. F. McNulty (Consolidated Edison), W. M. Krummel (Biomedical Engineering Consultant) and G. Woerner (County College of Morris). Mr. R. W. Hudak was secretary for the judges.

The "Newsletter" staff regrets this typesetting error.

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1. TITLE OF PUBLICATION: The IEEE Newsletter; 2. DATE OF FILING: October 1, 1973; 3. FREQUENCY OF PUBLICATION: Monthly September through May; 4. LOCATION OF KNOWN OFFICE OF PUBLICATION: 399 Howard Boulevard, Mt. Arlington, Morris County, New Jersey 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, John R. Zieger, Aircraft Radio Corp., Boonton, New Jersey 07005; Manager Editor, M. M. Perugini, 399 Howard Boulevard, Mt. Arlington, New Jersey 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

| Total Copies Printed | Average Prec. 12 months | Issue Nearest Filing Date |
|---|----------------------------|------------------------------|
| Total Copies Printed | 5735 | 5500 |
| Paid Circulation | | |
| Other Than Mail Subscriptions | None | None |
| Mail Subscriptions | 5276 | 5213 |
| Total Paid Circulation | 5276 | 5213 |
| Free Distribution | 46 | 34 |
| Total Distribution | 5322 | 5247 |
| Office Use, Left-Over, Unaccounted, Spoiled | 413 | 253 |
| TOTAL | 5735 | 5500 |

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

M. M. Perugini

ANNUAL STUDENT NIGHT AT NCE THE NEW ENGINEER IN THE POWER INDUSTRY

It was a highly positive feedback when electrical engineering graduates presented a glowing picture of challenge and opportunity in the electrical power industry to the 50 or 60 undergrads who attended the Sixth Annual Student Night Dinner Meeting at the Newark College of Engineering on October 25, 1973. It was sponsored by the Power Engineering Society Chapter, North Jersey Section of IEEE. "The New Engineer in the Power Industry" was the theme, which echoes throughout the program.

A nice receptive mood for the meeting was set by a choice *free* dinner. H. Youngster, Chairman of the Power Engineering Society, N.J. Section, welcomed the attendees and introduced the Panel Moderator, G. A. Davidson, Design Engineer, Jersey Central Power and Light Company. The panelists were—B. Corneu (Drexel Institute of Technology '70), Assistant Engineer, Public Service Electric and Gas Company; C. Reed (Villanova '65) Production and Sales Engineer, I.T.E. Imperial Corp., and J. Edelhofer (Northeastern University, BS '72, MSEE '73), Associate Engineer, Jersey Central Power and Light Co. In their presentations they drew from their varied fields of responsibility — Utility Distribution Engineering, Equipment Applications and Utility Relay Engineering, thus covering the major fields of engineering and technologist employment — R & D, production, sales and supervision.

During the presentations and the question and answer period that followed, the speakers showed the excitement of the fastest growing field in the industry — electric utilities, which doubles every 7 years. It needs a lot of good engineers and technologists to meet the challenge of developing new ways of producing and distributing power to satisfy the drastic increases in demand. The present state of the art is inadequate to cope with the demand. There are challenges of very high voltage transmission (1,200 KV), environmental problems and the ubiquitous lowering of costs (especially for installation). The students in the audience were left with no doubt about a wide open field of opportunities for employment in this dynamic and exciting field for many years to come.

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EDUCATIONAL PROGRAM

SPRING 1974

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. 1, No. 2 and No. 3. 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 and November, 1974. Please note that the Spring course will be completed prior to the April exam.

BASIC ENGINEERING SCIENCES I (IEEE—ASME)

STUDY GROUP NO. 1

Review for Part I & Part II, N.Y. Exam. Review will cover practical applications of Statics, Mechanics & Mathematics. MONDAYS, Starting January 7, 1974, 6:30—9:00 P.M., 12 sessions—Auditorium, 19th Floor, Con Edison Co., 4 Irving Place

Instructor: H. Abelson, Ph.D., Professor of Mechanical Engineering, Manhattan College

BASIC ENGINEERING SCIENCES II (ASME—IEEE)

STUDY GROUP NO. 2

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

TUESDAYS, Starting January 8, 1974, 6:30—9:00 P.M., 14 sessions—Room 1701, Con Edison Co., 4 Irving Place

Instructor: P. Szabados, P.E., Con Edison

ENGINEERING ECONOMICS & PRACTICE (IEEE—ASME)

STUDY GROUP NO. 3

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 3, 1974, 12 sessions—Room 1425, Con Edison Co., 4 Irving Place

Instructor: R.E. Mendoza, P.E., Public Service Electric & Gas of New Jersey

MECHANICAL ENGINEERING (ASME)

STUDY GROUP NO. 4

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 2, 1974, 6:30—9:00 P.M., 14 sessions—Room 1701, Con Edison Co., 4 Irving Place

Instructor: M. Kurtz, P.E., Consulting Engineer

ELECTRICAL ENGINEERING AND APPLICATIONS (IEEE)

STUDY GROUP NO. 5

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 2, 1974, 6:30—9:00 P.M.—12 sessions—Room 1425, Con Edison Co., 4 Irving Place

Instructors: L.E. Burnett, P.E., P.A.S.N.Y.

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

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EDUCATIONAL PROGRAM — SPRING 1974

SPECIAL STUDY GROUPS

The following study groups will be presented in the Spring starting later February:

INTRODUCTION TO FORTRAN IV PROGRAMMING
FUNDAMENTALS OF ELECTRICAL DESIGN—PART I
SYSTEM COORDINATION AND PROTECTION
SOLID STATE PROTECTIVE RELAYS

COMPLETE INFORMATION OF SPECIAL STUDY GROUPS
WILL BE PUBLISHED AT A LATER DATE.

REGISTRATION INFORMATION FOR REVIEW STUDY GROUPS

| GROUPS # | FEE PER GROUP | PAYABLE TO | MAIL TO |
|----------|---|--|---|
| 1, 3, 5 | \$50 each for Members, IEEE, ASME, NYSSPE; \$60 each for all others | "POWER & IND. GROUP N.Y. SECTION IEEE" | <i>I. M. Berger</i> , Vice Chairman Review Studies Educational Committee, IEEE N. Y. C. Transit Authority, Rm. 1200 370 Jay St., Brooklyn, N.Y. 11201 Phone: (212) 852-5000, Ext. 4495 |
| 2 | \$30 each for Members, IEEE, ASME, NYSSPE; \$40 each for all others | "ASME METROPOLITAN SECTION" | <i>T. J. Gucciardo</i> , P.E. Vice Chairman Education Comm., ASME, N.Y.C. Health & Hospital Corp. Bureau of Engineering & Maintenance 66 Leonard St., N.Y., N.Y. 10013 |
| 4 | \$50 each for Members, IEEE, ASME, NYSSPE; \$60 each for all others | | |

For further information contact: R. Samuelson, F. Riley or R. Nathan—Phone (212) 566-6940

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

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