



# Northeastern District Meeting

May 17-19, 1961

Hartford, Conn.

Headquarters  
Statler-Hilton Hotel

## SCHEDULE OF EVENTS

### Tuesday—May 16, 1961

2:00-5:00 P.M. Registration—  
Room 428

### Wednesday—May 17, 1961

#### A.M.

8:00 Registration opens  
9:00-10:30 Ladies' Coffee Hour  
9:30-12:00 Technical Sessions

#### P.M.

12:15 Luncheon—Ball Room  
1:00 Ladies' Luncheon and  
Fashion Show  
1:30-4:30 Inspection Trip —  
Connecticut General  
Life Insurance Building  
2:00-5:00 Technical Sessions  
6:30 Social Hour—With the  
Ladies  
7:30 Ladies' Dinner-  
Smoker—Ball Room

### Thursday—May 18, 1961

#### A.M.

9:00-10:30 Ladies' Coffee Hour  
9:00-12:00 Technical Sessions  
9:00-12:00 Inspection Trip—Allen  
Manufacturing Co.  
9:00-12:00 Inspection Trip—Pratt  
& Whitney Machine  
Tool Co., Inc.  
10:00-12:00 Ladies visit to  
Connecticut General  
Life Insurance  
Building

#### P.M.

12:15 Luncheon—Ball Room  
1:45-6:45 Inspection Trip to New  
Haven Redevelopment  
1:45-5:10 Inspection Trip to The  
Connecticut Light &  
Power Company's  
Dispatch Center  
2:00-5:00 Technical Sessions  
4:30 Connecticut Section  
Annual Meeting  
7:00 Social Hour  
8:00 Dinner Dance

### Friday—May 19, 1961

#### A.M.

8:00-9:00 Counselors' and  
Students' Breakfast  
9:00-10:30 Ladies' Coffee Hour  
9:00-12:00 Student Papers  
9:00-12:00 Technical Sessions  
9:00-12:00 Inspection Trip to  
Southern New England  
Telephone Company's  
Naugatuck Valley TJ  
Microwave System  
9:00-12:00 Inspection Trip to  
Combustion Engineering

#### P.M.

12:15 Luncheon  
2:00-5:00 Technical Sessions  
2:00-5:00 Conference for Student  
Branch Chairmen  
2:00-5:00 District 12 Executive  
Committee Meeting



The Statler-Hilton Hotel, Hartford, Connecticut

## ELECTRICITY—CREATOR OF HORIZONS UNLIMITED

The **AIEE Northeastern District Meeting** will be held at the Statler Hilton Hotel in Hartford, Connecticut, on Wednesday, Thursday and Friday, May 17, 18, 19, 1961.

Electricity's part in the creation of ever widening and challenging new horizons will be the dominant theme of the meeting. In industry, in communications and in power supply, new and expanding developments will be discussed at six technical sessions.

Papers in the **technical program** will cover new and important aspects of power systems' generation, transmission and distribution.

Subjects covering the latest in control systems, their tie with automation, new methods and ideas in process heating and the ever-increasing use of computers will attract wide attendance from the heavily industrialized areas of the Northeastern District 12.

For those interested in communications a variety of speakers on telephone and radio developments, including miniaturization and instrumentation, will be on the program. Such subjects as Touch Tone Telephoning, Selective Calling for Mobile Radio, and Communications Systems for Centralized Data Processing highlight the theme of Horizons Unlimited.

Complementing the technical presentations will be **inspection trips** to view equipment discussed in the sessions. These will include the electrical controls and apparatus to serve a large office building, the automatic machines of large factories with their automated production equipment, the latest in microwave repeater stations, a nuclear bomb-proof dispatch center, a redevelopment area and a reactor development laboratory.

The **opening luncheon** on Wednesday, May 17, 1961, will feature remarks by His Excellency John R. Dempsey, Governor of Connecticut.

At the **President's Luncheon** on Thursday, May 18, 1961, C. H. Linder, President of the

*Continued on page 4*

# NORTHEASTERN DISTRICT MEETING

## ADVANCE COPIES OF PAPERS

Members may obtain preprints of numbered papers at the uniform price of 50¢ each (\$1.00 each to nonmembers), by sending enclosed order form and remittance to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Mail orders (particularly from out-of-town members) are advisable, inasmuch as an adequate supply of each paper at the meeting cannot be assured. Coupon books in \$10 denominations are available for those who wish to avoid remittance by check or otherwise. The Transactions Papers will also be published in the bimonthly publications.

Note: Unnumbered Conference Papers (CPA) may be available at or after the meeting, if copies are provided by the author. They are not intended for publication in the Transactions and are not presently scheduled for reproduction in any form by the Institute.

Note: The TRANSACTIONS papers will be printed in the bimonthly publications as follows:

- I COMMUNICATIONS AND ELECTRONICS.
- II APPLICATIONS AND INDUSTRY.
- III POWER APPARATUS AND SYSTEMS.

## Wednesday, May 17

### 9:30 a.m.—Industrial Control

Buffalo-New York-Washington Rooms

Presiding Officer: E. E. KIRKHAM, Pratt & Whitney Co., Inc.

- CP61-645. Speed Regulation by Digital Methods. R. R. Potts, Reliance Electric and Engineering Company.
- CPA. The Rebirth of Numerical Contouring. John Dutcher, General Electric Company.
- CP61-628. Digital Numerical Machine Tool Controls. N. L. Caban, Westinghouse Electric Corporation.
- CP61-649. Measurement of Loop Gain in a Carrier Servo System. Dr. James E. Shea, The Perkin-Elmer Corporation.

### 9:30 a.m.—Power Systems Distribution

Hartford Room

Presiding Officer: T. R. MACON, General Electric Company

- CP61-634. Pole Top Design for 23 KV Distribution. S. R. Gilligan, The Hartford Electric Light Company.
- CPA. 25 KV Distribution—Design and Operating Experience. P. H. Morris, Cape and Vineyard Electric Company.
- CP61-629. A Systematic Approach to Preparing Street Light Surveys. R. H. Chase, The Hartford Electric Light Company.

### 2:00 p.m.—Industrial Control

Buffalo-New York-Washington Rooms

Presiding Officer: D. WILLARD, Pratt & Whitney Aircraft

- CP61-623. NOR Logic. R. F. Anderson, Pratt & Whitney Company, Inc.
- CP61-654. Synthesis with Exclusive-OR Functions. R. A. D'Antonio, International Business Machines Corp.
- CP61-650. Characteristics of a Synchronous Inductor Motor. A. E. Snowden & E. W. Madsen, The Superior Electric Company.
- CPA. Hysteresis Scope—Magnetic Material Testing. R. S. Lundin, Haydon Division of General Time Corp.
- CPA. The Effects of Conduction and Grid Currents on Thyatron Circuits. E. F. Nowak, Pratt & Whitney Co., Inc.

### 2:00 p.m.—Power Systems Distribution

Hartford Room

Presiding Officer: C. L. GAMBLE, General Electric Company

- CP61-637. Low Voltage Network Problems Solved by a Digital Computer. C. A. Jacobson, Western Massachusetts Electric Company.
- 61-633. 32-Step Voltage Regulator Performance. M. W. Gangel & III W. W. Green, General Electric Company.
- CP61-639. Economics of Secondary Capacitors in Distribution Conversion Areas. V. P. Juselis, The Hartford Electric Light Company.
- CP61-648. Estimating the Economical Power Factor Based on Incremental Loss Reduction. J. A. Sainz, General Electric Company.

### 2:00 p.m.—Power Generation

Rooms 408-412-416

Presiding Officer: R. P. CORMIER, The Connecticut Light and Power Company

- CP61-651. Peaking with Diesels by Remote Control. J. D. Waddell, Maine Public Service Company.
- CPA. Direct Conversion of Energy—MHD. Dr. G. Lanza, Northeastern University.
- CPA. A Large Volume Fifty Five Thousand Gauss Magnetic Field System for Thermonuclear Research. C. W. Bushnell, Allis-Chalmers Manufacturing Company, C-Stellerator Associates.
- CPA. Pumped Storage—A New Power Source. T. F. Armbruster, Allis-Chalmers Manufacturing Company.
- CPA. Considerations in the Economics of Electric Hydro Design. R. L. Bean, Central Maine Power Company.

## Thursday, May 18

### 9:00 a.m.—Communications

Buffalo-New York-Washington Rooms

Presiding Officer: R. A. GOGOLEN, The Southern New England Telephone Company

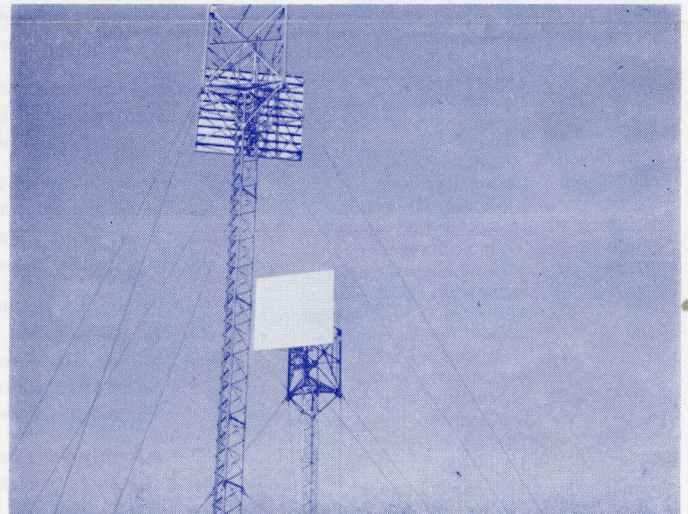
- CP61-641. A New Selective Calling System for Mobile Radio. D. M. Morton, The Hartford Electric Light Company.
- CPA. Touch Tone Telephoning. W. L. Kimmich, Jr., The Southern New England Telephone Co.
- CPA. Mechanization of Equipment Ordering. R. J. Gray, New England Tel. & Tel. Co.
- CP61-653. Loop Around Transmission Test Circuit. F. O. Richardson and J. J. Clark, New England Telephone & Telegraph Co.

### 9:00 a.m.—Space Heating

Hartford Room

Presiding Officer: F. W. BUCK, The United Illuminating Company

- CPA. Distribution System Design to Supply Electric House Heating Loads in New England. K. W. Proctor, Worcester County Electric Company.
- CPA. Determination of Space Heating Load Characteristics. J. W. Megley, Boston Edison Company.
- CPA. Description and Appraisal of Available Space Heating Equipment. J. M. Turnbull, Western Massachusetts Electric Company.
- CP61-652. Electric Floor Heating—Hopmeadow Street Simsbury Service Center. R. P. Werner, The Hartford Electric Light Company.



“Double Passive” Installation, Southern New England Telephone Co.

## TECHNICAL PROGRAM

### 9:00 a.m.—Power Systems Engineering

Rooms 408-412-416

Presiding Officers: R. J. NOLTE and L. R. VALONEN,  
Westinghouse Electric Corporation

- CPA. Redevelopment and the Utility. J. I. Sendlein, The United Illuminating Company.
- CP61-630. A Coordinated Approach to Spinning Reserve in New England. C. P. Corey, New England Power Co.; J. M. Schamberger, The Connecticut Light and Power Co.; D. Z. Stremblau, Connecticut Valley Power Exchange; B. H. Weiner, Boston Edison Co.
- CP61-625. Coordinated System Planning. A Multi-Company Approach. A. W. Barstow, Western Massachusetts Electric Co.; H. H. Mochon, Jr., Connecticut Valley Power Exchange; G. W. Sampson, The Hartford Electric Light Co.; A. P. Sternberg, The Connecticut Light & Power Co.; P. J. Sullivan, The United Illuminating Co.
- CP61-626. A Capacity and Production Cost Computer Program for a Hydro-Thermal System. A. W. Barstow, Western Massachusetts Electric Co.; H. H. Mochon, Jr., Connecticut Valley Power Exchange; A. P. Sternberg, Connecticut Light & Power Co.; W. H. Ferguson & L. R. Valonen, Westinghouse Electric Corp.; G. W. Sampson, The Hartford Electric Light Co. and P. J. Sullivan, United Illuminating Company.

### 2:00 p.m.—Insulated Conductors

Rooms 408-412-416

Presiding Officer: F. H. LINSLEY, The Hartford Electric Light Company

- CPA. Cables for Underground Residential Distribution. B. J. Mulvey, General Electric Company.
- CPA. Varnished Dacron Glass Insulated Cable. S. Zysk, General Electric Company.
- CP61-640. Calculation of Induced Voltages and Currents in Structural Metal. V. S. McFarlin, Boston Edison Company.
- CP61-627. Hydraulics of Boston Edison Co.—Brighton to Baker 115 KV Pipe Type Cable Line. K. J. Bechet, Boston Edison Company.
- CPA. Electrolysis Problems on Cable Sheaths. A. W. Bachelder, The Southern New England Telephone Co.

### 2:00 p.m.—Communications

Buffalo-New York-Washington Rooms

Presiding Officer: L. A. VOCELLI, The Southern New England Telephone Company

- CP61-635. Supervisor's Centralized Answering Service—#3, #3C, #3CL Switchboards. G. J. Grafton, J. G. Stephens, New England Tel. & Tel. Company.
- CP61-644. Bellboy Signalling Service. T. T. Pettingell, Jr., New England Tel. & Tel. Company.
- CPA. Communication Systems for Centralized Data Processing. L. W. Kirkland, Jr., New England Tel. & Tel. Company.
- CPA. Light Route Micro-Wave Radio System for Southern New England Telephone Company Service in Connecticut. J. F. Cannon, The Southern New England Telephone Company.
- CPA. Orientation of Passive Micro-Wave Reflectors. D. E. Karmann, The Southern New England Telephone Co.

### 2:00 p.m.—Power System Relaying

Hartford Room

Presiding Officer: S. H. LAW, Western Massachusetts Electric Co.

- CP61-624. Backup Protection for Ring Bus. E. P. Barry, The Hartford Electric Light Company.
- CPA. Relaying Philosophy at Yankee. H. Goodrich, New England Electric Service.
- CP61-632. Relay Protection Philosophies in The Hartford Electric Light Company. W. F. Fee, The Hartford Electric Light Company.
- CPA. Protective Relaying at EHV. J. Berdy, C. B. Lindh, General Electric Company; N. Engbretson, Western Massachusetts Electric Company.



Pratt & Whitney Machine Tool Co., West Hartford, Conn.

## Friday, May 19

### 9:00 a.m.—Miniaturization and Instrumentation

Buffalo-New York-Washington Rooms

Presiding Officer: E. S. RAILA, Burndy Corporation

- CPA. Application of a Magnetic Tube in the Design of an Instrumentation Motor. C. M. Larime, Dictaphone Corporation.
- CPA. Laminated Circuits. E. A. Bolton, Vitramon Corporation.
- CPA. Lack of Sufficient Data & Specifications Covering Small Electrical Conductors. J. D. Anderson, Burndy Corporation.
- CP61-631. Methods of Analysis of Complex Systems. Dr. L. Dolansky, Northeastern University.

### 9:00 a.m.—Power Systems Transmission

Hartford Room

Presiding Officer: T. R. MACON, General Electric Company

- CPA. Design and Construction of 115 KV Transmission Line Through Built Up City Area of Bridgeport, Connecticut. A. F. Sedgwick, The United Illuminating Company.
- CPA. Service Experience with Constant Pressure Oil Preservation System. G. G. Doucette, General Electric Company.
- CPA. Phase to Phase Switching Surges on Line Energization. I. B. Johnson, General Electric Company; R. F. Silva, General Electric Company; D. D. Wilson, General Electric Company.
- CPA. Short Duration Current Capabilities Overhead ACSR Lines. H. W. Lis, F. R. Longley, Western Massachusetts Electric Co.

### 2:00 p.m.—Electric Process Heating

Buffalo-New York-Washington Rooms

Presiding Officer: J. H. AHRENS, The Hartford Electric Light Company

- CP61-638. High Power Density Radiant Heating. R. W. Jeffery, Fostoria Corporation.
- CP61-647. New High Frequency Resistance Welding Applications. W. C. Rudd, New Rochelle Thermatool Corporation.
- CP61-636. The Application of the Fluidized Bed in Industrial Heating. K. F. Henrich, General Electric Company.
- CP61-642. All Electric Furnace for Bright Annealing of Stainless Steel Strip. W. Muirhead, General Electric Company; G. A. Smith, Jr., Wallingford Steel Company.

### 2:00 p.m.—Computers

Hartford Room

Presiding Officer: L. R. JONES, Dictaphone Corporation

- CPA. Seminar on Computer Applications. H. Fokens, National Cash Register Company; E. Seaman, Dictaphone Corporation; O. J. Black, International Business Machines Corporation.
- CP61-646. Computer Solutions to Nuclear Icebreaker Propulsion Problems. G. F. Rodgers, M. B. Electronics Corporation.

## NORTHEASTERN DISTRICT MEETING

CONTINUED FROM PAGE 1

American Institute of Electrical Engineers, will be the speaker.

On Friday, May 19, 1961, the **District Vice President's Luncheon** will feature the presentation of the Student Awards with F. S. Bacon, District 12 Vice President, presiding.

The City of Hartford is an appropriate location for a meeting using the theme "**Electricity—Creator of Horizons Unlimited.**" Located in the center of a state whose activities and accomplishments in the fields of manufacturing, invention and product development are outstanding, it is the hub of a metropolitan area where are found examples of almost all of Connecticut's most important activities. Classified by many as one of the most attractive capital cities of the country, Hartford is called the insurance city of the world. Easily reached by auto over turnpike roads from all of New England, its many tourist attractions will help increase the attendance at the District meeting.

### REGISTRATION

Fill out your **registration card** at once and return it in the mail. This will help you at the registration desk and assist your committee in planning for your arrival.

The **registration desk** will be open in Room 428 from 2:00 to 5:00 p.m. on Tuesday, May 16, 1961, the day preceding the meeting. It will be open all during the meeting starting at 8:00 a.m., Wednesday, in the **foyer**. Registration fees are \$4.00 for members, \$7.00 for non-members, ladies \$2.00, student members no fee.

### HOTEL RESERVATIONS

A block of rooms has been set aside at the Statler Hilton Hotel, Ford and Pearl Streets, Hartford 3, Connecticut, for members and guests attending the meeting. **Requests for reservations** should be sent to the hotel in care of the "Front Office Manager," specifically referring to the AIEE meeting in your letter. Also, a card is enclosed for this purpose. Please do not contact more than one hotel. If your request cannot be filled, the Statler Hilton will automatically refer your request to the Hotel Accommodations Committee whose duty it is to obtain a similar reservation at another nearby hotel. The hotel will confirm directly to you.

Reservations should be made as early as possible to obtain the best accommodations.

Rooms have been allotted for our use at the following daily rates:

Statler Hilton Hotel (Convention Headquarters), Ford and Pearl Streets:

Single Rooms	\$ 8.00 to \$12.00
Double-Bed Room	\$13.00 to \$15.50
Twin-Bed Room	\$16.00 to \$18.00

(More than two persons in one room: For each additional person in double or twin bedroom, the extra charge is \$3.50 per day.)

Suites—Living Room, Bedroom, and bath for one or two	\$27.50 to \$43.50
--	--------------------

Special Student Rates (for students from accredited colleges)	\$ 6.50 per person
	\$11.00 for two people
	\$13.50 for three people

All rooms have private bath.

Although no rooms have been set aside at the following hotels, they are available as follows (both hotels are within a block of the Statler Hotel):

Shoreham Motor Hotel, 440 Asylum Street, Hartford.	
Single Room	\$10.50 to \$14.00

Double Rooms, Twin or Double Beds

Two Persons	\$14.00 to \$17.00
Three Persons	\$17.50 to \$21.50
Suites, Two Persons	\$25.00 and up

Hotel Bond, Asylum Street, Hartford, Connecticut.

Single Room	\$ 6.60 to \$10.50
Double-Bed Room	\$ 9.50 to \$13.00
Twin-Bed Room	\$11.00 to \$15.00
Every room with private bath	
Suites \$20.00 and up	

Lodgings for **student members** are available at the YMCA as follows: (No membership required)

Rates: \$1.50 per man per night in dormitories (takes care of 6-10 men) \$3.00 per man per night in single or double room. Rates \$5.00 less for YMCA members.

Reservations should be made direct with the YMCA, 315 Pearl Street, Hartford, Conn. Att: Dormitory Sec'y.

For additional information, if needed, contact M. E. C. Devine, Chairman, Hotel Arrangements Committee, c/o Westinghouse Electric Corporation, 119 Ann Street, Hartford, Connecticut.

### LUNCHEONS

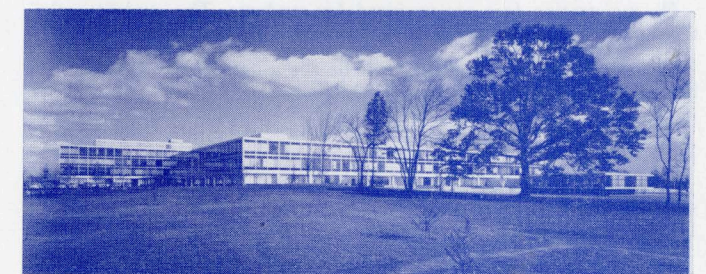
The **opening luncheon**, at 12:15 p.m., Wednesday, May 17, 1961, will be held in the Ball Room of the Statler Hilton. The District Meeting Chairman will preside. His Excellency John R. Dempsey, Governor of Connecticut, will address the members.

Tickets will be \$3.25 per person, available in the Foyer.

The **Ladies' Luncheon**, at 1:00 p.m., Wednesday, in the Mark Twain Suite at the Shoreham Hotel, will feature a fashion show by Connecticut's leading center of fashionable women's wear. Tickets \$3.00 per person in the Foyer.

The **President's Luncheon**, at 12:15 p.m., Thursday, May 18, 1961, will be in the Ball Room. The Chairman of the District Meeting will preside. President C. H. Linder of the American Institute of Electrical Engineers will be the speaker. Tickets \$3.25 per person, available in the Foyer.

The **District Vice President's and Students' Luncheon**, at 12:15 p.m., on Friday, May 19, 1961 will have Vice President F. S. Bacon presiding. Student Awards will be presented. Tickets available in the Foyer, \$3.25 per person, Student members—no charge.



Connecticut General Life Insurance Co. Building, Bloomfield, Conn.

## TECHNICAL PROGRAM

### EVENING AFFAIRS

Wednesday—A social hour from 6:30 p.m. to 7:30 p.m., in the Buffalo-New York-Washington Room, for the members and their ladies, will precede the ladies' dinner and the men's smoker.

At the **Ladies' Dinner**, at 7:30 p.m. in the Hartford Room, Priscilla Hiers will describe her trip around the world as a member of the crew of the brigantine "Yankee." Tickets will be \$5.00 available in the Foyer.

The **Men's Smoker** at 7:30 p.m. in the Ball Room will have several acts of professional entertainment, including The Agostinos, a surprise acrobatic novelty act, Black & Nolen as "Beauty and the Least," and Jacqueline James, the Beautiful Blonde Singing Comedienne. Tickets will be \$6.50 per person available in the Foyer.

Thursday—A social hour from 7:00 p.m. to 8:00 p.m. will precede the **Dinner Dance** at 8:00 p.m. in the Ball Room. Dress will be semi-formal. The officers of the host Connecticut Section will be recognized at the dinner. Tickets will be \$6.75 per person, available in the Foyer.

### LADIES' PROGRAM

Ladies' headquarters in Room 404 will be open all during the meeting. Mrs. J. Douglas Guy, with co-chairman Mrs. Lawrence B. Grew, and their committee, have planned an interesting program for the ladies attending this meeting.

There will be a coffee hour each morning, and a luncheon and Fashion Show on Wednesday. That evening they will enjoy cocktails with the men, followed by a dinner with speaker Miss Priscilla Hiers narrating her amusing personal experiences of her sailing trip around the world as a member of the crew of the "Yankee."

On Thursday morning a visit is planned to "The City Within a Building," the Connecticut General Life Insurance Company. Thursday afternoon you are on your own to enjoy the shops and points of interest in Hartford.

Thursday night "Dine and Dance" in the beautiful ball room of the Statler Hilton Hotel. The Connecticut Section this year is combining its customary annual dinner dance with that of the Northeastern District.

Wednesday—9:00 to 10:30 a.m.—Coffee in the Terrace Room.

1:00 p.m.—Luncheon and Fashion Show—Mark Twain Suite, SHOREHAM Hotel.

6:30 p.m.—Social hour with the men in the Buffalo-New York-Washington Room.

7:30 p.m.—Dinner—Speaker Priscilla Hiers—Hartford Room.

Thursday—9:00 to 10:30 a.m.—Coffee in the Terrace Room.

10:00 a.m. to 12:00 noon—Ladies' visit to Connecticut General Life Insurance Building.

7:00 p.m.—Social hour.

8:00 p.m.—Dinner Dance—Semi-formal.

Friday—9:00 to 10:30 a.m.—Coffee in Room 436-440.

### STUDENT ACTIVITIES

No registration fees are required for students. The student activities are all scheduled for Friday, May 19, 1961.

The counselors and students will be the guests of the District at a breakfast meeting from 8:00 to 9:00 a.m.

The student prize papers will be presented from 9:00 a.m. to 12:00 noon in Room 408-412-416-420.

The students and counselors will be the guests of the Connecticut Section at the District Vice President's and Students' Luncheon at 12:15 p.m., when the student awards will be presented.

Special rates are available to the students in the Statler Hilton only (see registration information).



Allen Mfg. Co., Bloomfield, Conn.

**Student Branch Chairmen Meeting** will take place in Room 408-412-416 on Friday, May 19, 1961 from 2:00 to 5:00 p.m.

### INSPECTION TRIPS

**Connecticut General Life Insurance Company**—900 Cottage Grove Road, Bloomfield—Wednesday, May 17, 1961—1:30 p.m. Bus leaves hotel main entrance. Tickets \$1.00 per person, available in Foyer.

The "City Within a Building," this 600,000 square foot office building is of the most modern type. It has an outstanding installation of complete year-round air-conditioning equipment with numerous zones controlled from a central control room. Building temperature must be maintained within a range of plus or minus three degrees due to building construction. It has a very modern electric service supply and plant electric distribution system. Features of the building include modern lighting throughout, escalators instead of elevators, bowling alleys, theatre, and beautiful cafeteria and restaurant with electric kitchen. Part of their office equipment comprises an electronic computer rated at 100 kw.

A film, "Building For Tomorrow," will be shown. In it the erection and construction of building are depicted from the very beginning.

The electric power load of approximately 3,000 kw is served by 2—22.9 kv feeders (one normal feeder and one alternate source of supply). Primary feeder voltage is stepped down from 22.9 kv to 4.16 kv by two 5000/6250 kva, three-phase transformers. The 4.16 kv is distributed underground to various load centers where it is stepped down to a utilization of 277/480 volts. Lighting is at 265 volts and motor load at 440 volts. Dry type transformers are installed to obtain 120 volts for miscellaneous business machines and office equipment.

**Allen Manufacturing Co.**—Bloomfield—Thursday, May 18, 1961—9:00 a.m. Bus leaves hotel main entrance. Tickets \$1.00 per person, available in Foyer.

This is a new plant equipped for the highest worker efficiency by the use of an ideal **productive environment** secured by high levels of illumination and an unusual atmosphere control. Vapor, fog and mist eliminators are used to remove oil from the air in the building and reclaim it, at the same time improving working conditions. Visitors will also see new ideas in power supply for the special process heating requirements of the Allen Company's production.

**Pratt & Whitney Machine Tool Company**—Charter Oak Boulevard, West Hartford, Thursday, May 18, 1961—9:00 a.m. Bus leaves hotel main entrance. Tickets \$0.75 per person, available in the Foyer.

## NORTHEASTERN DISTRICT MEETING

Manufacturers of a wide variety of Numerically Controlled machine tools. Visitors will see being built and operated numerically controlled jig borers, milling machines (Keller), rotary tables and tape controlled automatic turret lathes. Complementing the industrial control technical session of the previous day, the machines and equipment will illustrate the principles previously discussed.

**The Connecticut Light and Power Company's Dispatch Center**—Bellevue Avenue, Southington—Thursday, May 18, 1961—1:45 p.m. Bus leaves hotel main entrance. Tickets \$2.50 per person available in Foyer.

The C. L. & P. Company's underground electric dispatching center is designed to resist radioactive fallout in the event of nuclear warfare. The requirements for a building of this type result in many unusual problems. How these were solved will be explained by CL&P Co. engineers during the visit. Included in the special installations used in the building are an emergency electric generation equipment, an electrostatic air cleaning system, and a closed circuit television which allows the operator to monitor the main entrance. Special features are a desired generation computer, automatic load dispatching, utilizing microwave transmission as well as line carrier, various types of telemetering and monitoring and completely air conditioned underground working and living quarters.

**New Haven Redevelopment**—Thursday, May 18, 1961—1:45 p.m. Bus leaves hotel main entrance. Tickets \$1.50 per person available in Foyer.

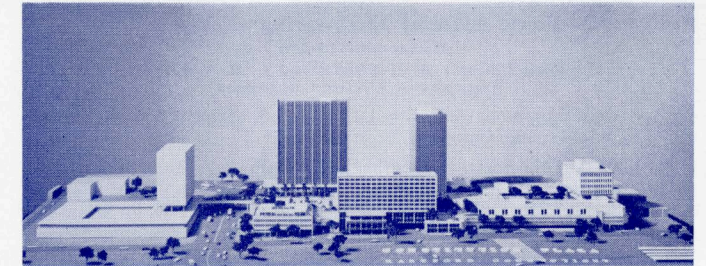
A tour of the much publicized New Haven area in a bus equipped with a loud speaker for a commentator to explain and describe the construction work in progress and completed.

For its size the New Haven project is the most comprehensive in the nation, including five separate areas involving over 1,000 acres. It is by far the largest in New England and within a five-year period will cost over \$150,000,000 for the redevelopment, renewal, and rehabilitation of downtown industrial, commercial, residential and waterfront properties.

The tour will stop at the SNET Co. auditorium for a presentation, with slides, by Messrs. Eben Haskell, Floyd Buck and Marvin McCoy of the United Illuminating Company on the scope of the redevelopment, with emphasis on the problems of power supply.

**Southern New England Telephone Company TJ Microwave System**—Waterbury and Wolcott—Friday, May 19, 1961—9:00 a.m. Bus leaves from hotel main entrance. Tickets \$1.75 per person available in Foyer.

This will be a tour of The Southern New England Telephone Company's recently established TJ Microwave System which provides



New Haven Redevelopment

the Naugatuck Valley area with additional facilities and insures, through diversification, greater service continuity in time of emergencies. This is a new and unusual application to avoid the need for high towers and accomplish transmission around obstacles.

Visits will be made to two of the system's tower locations, Waterbury and Wolcott. The Waterbury site is a double passive location where reflectors on two 80 foot towers are used to change the direction of transmission by bouncing the signal in "billiard like" fashion. The Wolcott site is one of the system's major junction points and features a 90 foot self supporting tower.

Telephone Company engineers will be present at both locations to discuss the operation of the system, together with some of the construction and alignment problems that were encountered, and to answer any questions.

**Combustion Engineering**—Bloomfield—Friday—9:00 a.m. Bus leaves hotel main entrance. Tickets \$1.00 per person available in Foyer. Proof of citizenship required.

The inspection trip will include two reactor cores under test and a prototype model of boiling water reactor. Also on the tour will be an inspection trip to see the materials development laboratory and its equipment.

**Connecticut Section Annual Meeting**—Reports of Officers and Election results—Room 436-440, Thursday, 4:30 p.m.

**Northeastern District 12 Executive Committee Meeting**—Room 436-440, Friday, 2:00 p.m.

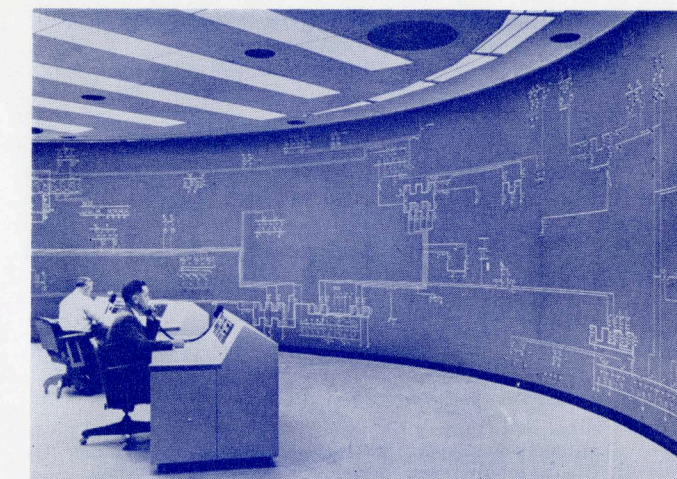
**Members of the Northeastern District 12 Meeting Committee**—C. T. Hughes, Chairman, Charles L. Derrick, Vice Chairman, John M. Schamberger, Secretary, A. E. Sapega, Chairman, Registration Committee; J. D. C. Guy, Chairman, Entertainment; Roger W. Boyd, Chairman, Inspection Trips; Theodore Newcomb, Chairman, Transportation Committee; M. E. C. Devine, Chairman, Hotel Arrangements; Donald C. Switzer, Chairman, Technical Program; Harold M. Marsden, Chairman, Student Activities; Mrs. Lawrence B. Grew and Mrs. J. Douglas C. Guy, Co-Chairmen, Ladies' Activities; Q. Q. Quinn, Chairman, Publicity; Ernest A. Johnson, Chairman, Finance.

Issued by

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

33 West 39th Street, New York 18, N. Y.

PRINTED IN U.S.A.



Southington Dispatch Center, The Connecticut Light & Power Co.



# ORDER FORM for TECHNICAL PAPERS

NORTHEASTERN DISTRICT MEETING  
HARTFORD, CONNECTICUT  
MAY 17, 18, 19, 1961

### PRICES

**FOR A.I.E.E. MEMBERS \$ .50 EACH**  
**FOR NON A.I.E.E. MEMBERS 1.00 EACH**

**ALL ORDERS MUST BE ACCOMPANIED BY REMITTANCE**

**COUPON BOOKS in \$10.00 denominations are available for those who wish to avoid remittance by check or otherwise. CASH MUST ACCOMPANY ORDER FOR COUPON BOOKS.**

ORDER DEPARTMENT, AIEE  
33 West 39th Street, New York 18, N. Y.

I enclose remittance of \$....., for which please send advance pamphlet copies of papers checked below. The standard price per copy includes postage at 3rd class rates. If prompt delivery is desired, papers will be mailed 1st class upon an **additional payment of 5¢ per copy.**

THIS ORDER IS FROM: \_\_\_\_\_ Member No. \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

### PAPER NUMBERS

- |                                  |                                 |                                  |                                  |                                  |                                 |
|----------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|
| <input type="checkbox"/> 61-623  | <input type="checkbox"/> 61-629 | <input type="checkbox"/> 61-635  | <input type="checkbox"/> 61-641  | <input type="checkbox"/> 61-648* | <input type="checkbox"/> 61-654 |
| <input type="checkbox"/> 61-624  | <input type="checkbox"/> 61-630 | <input type="checkbox"/> 61-636  | <input type="checkbox"/> 61-642* | <input type="checkbox"/> 61-649* |                                 |
| <input type="checkbox"/> 61-625  | <input type="checkbox"/> 61-631 | <input type="checkbox"/> 61-637  | <input type="checkbox"/> 61-644  | <input type="checkbox"/> 61-650  |                                 |
| <input type="checkbox"/> 61-626* | <input type="checkbox"/> 61-632 | <input type="checkbox"/> 61-638* | <input type="checkbox"/> 61-645* | <input type="checkbox"/> 61-651* |                                 |
| <input type="checkbox"/> 61-627  | <input type="checkbox"/> 61-633 | <input type="checkbox"/> 61-639  | <input type="checkbox"/> 61-646* | <input type="checkbox"/> 61-652* |                                 |
| <input type="checkbox"/> 61-628* | <input type="checkbox"/> 61-634 | <input type="checkbox"/> 61-640  | <input type="checkbox"/> 61-647  | <input type="checkbox"/> 61-653* |                                 |

\*Not physically on hand when this form was printed, delivery cannot therefore be guaranteed before the meeting (see labels below).

IF ORDER HAS BEEN PAID FOR AT 1st CLASS MAIL RATES, PLEASE CHECK HERE.

BELOW ARE YOUR MAILING LABELS, PLEASE FILL IN CLEARLY TO INSURE PROPER DELIVERY.

**FOR PAPERS 61-626, 61-628, 61-638, 61-642, 61-645, 61-646, 61-648, 61-649, 61-651, 61-652, 61-653**

NAME \_\_\_\_\_ (PLEASE PRINT) (MEMBERSHIP NO.) \_\_\_\_\_

ADDRESS \_\_\_\_\_

(Contents — Printed Matter)

Postmaster: This parcel may be opened for Postal Inspection if necessary.  
Return postage guaranteed.

Printed in U.S.A.

### FOR PAPERS WHICH ARE AVAILABLE

NAME \_\_\_\_\_ (PLEASE PRINT) (MEMBERSHIP NO.) \_\_\_\_\_

ADDRESS \_\_\_\_\_

(Contents — Printed Matter)

Postmaster: This parcel may be opened for Postal Inspection if necessary.  
Return postage guaranteed.

Printed In U.S.A.