

American Institute of Electrical Engineers

# PACIFIC GENERAL MEETING



FAIRMONT HOTEL  
San Francisco, California  
AUGUST 23-26, 1949





## AIEE Special Publications

The following is a list of special AIEE publications that are available at the technical papers desk:

	PRICE	
	Members	Non-members
Application of Electric Conversion Equipment to the Electrochemical Industry (November 1947) .....	\$ .40	\$ .80
Bibliography on Electrical Safety 1930-1941 (July 1942) .....	.25	.50
Bibliography on High-Frequency Dielectric Heating (August 1947) .....	.35	.75
Bibliography on Power Supply for Electric Welding 1930-47 (June 1948) .....	.30	.60
Electric Power Applications in the Textile Industry (September 1947) .....	.40	.80
Electric Power Distribution for Industrial Plants .....	1.00	1.00
Electric Power in the Pulp and Paper Industry (February 1948) .....	.50	1.00
Electrical Engineering Problems in the Rubber and Plastics Industries (October 1948) .....	1.50	3.00
A: Electron Tube Survey of Instrument Manufacturers and Laboratories (March 1948) .....	1.00	2.00
B: Electron Tubes for Instrumentation and Industrial Use (November 1948) .....	1.50	3.00
Combination of Electron Tube Reports—Items A and B listed directly above .....	2.00	4.00
Grounding Principles and Practice (June 1945) .....	.50	.50
Nucleonics Series (April 1949) .....	.40	.80
Power Supply for Resistance Welding Machines: Parts 1 and 2 (May 1940) .....	.25	.25
Part 3 (April 1941) .....	.25	.25
Progress in the Art of Metering Electric Energy (December 1941) .....	.25	.50
Statistical Methods in Quality Control (February 1948) .....	.35	.70
Telemetering, Supervisory Control and Associated Circuits (September 1948) ..	1.00	2.00
Tidd 500-Kv Test Lines (January 1948) ..	.50	1.00
Ultrashort Electromagnetic Waves (December 1943) .....	.50	.50
17 year Index of the AIEE TRANSACTIONS .....	2.00	3.00
Electric Arc and Resistance Welding .....	3.50	3.50
Mathematics for Engineers .....	.15	.30

## SCHEDULE OF EVENTS

(See Separate Schedule for the Ladies)

### Tuesday, August 23

- 8:30 A.M. Registration. Main Lobby, Fairmont Hotel.
- 10:00 A.M. Opening of Meeting. Gold Room.  
George C. Tenney, Chairman  
Welcome: T. C. McFarland, Chairman, San Francisco Section
- 10:15 A.M. General Session. Gold Room
- 12:00 M. Luncheon Meeting  
Address: Can Engineers be Synchronized?  
James F. Fairman, President, AIEE
- 2:00 P.M. Power Generation and Distribution. Red Room
- 2:00 P.M. Air Transportation. Vanderbilt Room
- 7:00 P.M. Meeting of District, Section and National Officers and Student Counselors. Vanderbilt Room

### Wednesday, August 24

- 9:00 A.M. Inspection Trip, Station "P" Steam Plant, Pacific Gas and Electric Co.
- 9:30 A.M. Home Heating Symposium. Garden Room
- 9:30 A.M. Power and Instruments. Red Room
- 9:30 A.M. Air Transportation. Vanderbilt Room
- 1:30 P.M. Inspection Trip to Radiation Laboratory, University of California
- 2:00 P.M. Power Generation and Distribution. Red Room
- 2:00 P.M. Electronics and Communications. Garden Room
- 2:00 P.M. Air Transportation. Vanderbilt Room
- 7:30 P.M. Meeting Student Branch Officers and Counselors, University of California. Engineering Building, Rm. 112

### Thursday, August 25

- 9:00 A.M. Inspection Trip to San Francisco Naval Shipyard, Hunter's Point.
- 9:00 A.M. Inspection of Pacific Gas and Electric Company Calculating Board, Basement, 245 Market St.
- 9:30 A.M. Industrial. Garden Room
- 9:30 A.M. Conference on Aircraft Electrical System Protection. Vanderbilt Room
- 10:00 A.M. Conference Meeting on Calculating Board Operation. Room 1506, P.G.&E. Co. Building, 245 Market St.
- 12:00 M. Golf at Peninsula Golf and Country Club. San Mateo
- 1:30 P.M. Inspection Trip to Mission Substation, P.G.&E. Co.
- 2:00 P.M. Conference on Aircraft Electrical Systems. Vanderbilt Room
- 7:30 P.M. Banquet and Presentation of Golf Prizes. Gold Ball Room

### Friday, August 26

- 9:00 A.M. Inspection Trip to New Regional Automatic Toll Switching Center. Franklin Bldg., Oakland
- 9:30 A.M. Student Session. Garden Room
- 9:30 A.M. Air Transportation. Vanderbilt Room
- 1:30 P.M. Inspection Trip to Columbia Steel Co.
- 1:30 P.M. Inspection Trip to Ames Aeronautical Laboratory, Moffett Field
- 2:00 P.M. Electronics and Science. Garden Room
- 2:00 P.M. Power Generation and Distribution. Vanderbilt Room
- 2:00 P.M. Student Session. Room 104, Engg. Bldg., University of California
- 6:30 P.M. Student Dinner and Meeting. University Cafeteria, University of California.



GENERAL INFORMATION

The headquarters of the 1949 Pacific General Meeting is at the Fairmont Hotel. All technical sessions and social functions will be held there.

**Registration Fees Required.** In accordance with the policy set up by the Board of Directors, a registration fee of \$3.00 has been established for members and a fee of \$5.00 for nonmembers. This is to help make the meeting self-supporting and obviate the need for raising the annual dues. Enrolled students and the immediate families of members will not be required to pay any fee.

**Tickets** for all social functions and inspection trips should be obtained at the registration desk. Since space at all functions will be limited, it is desirable that you register promptly for these and all other events.

**Information** on all features may be obtained at the registration desk. Efforts will be made to deliver telegrams and messages promptly. Members who expect to receive mail are asked to inquire frequently at the mail and registration desk.

**Technical Sessions and Discussions** are covered by the "Conduct of Technical Sessions" at the discretion of the presiding officers. Usually 10 minutes will be allowed for the presentation of each paper and 5 minutes for each discussion. To receive consideration for publication, discussions must be left with the chairman or sent to Edward C. Day, AIEE, 33 West 39th Street, New York 18, N. Y., before Sept. 9, 1949. Discussions received later will be returned. The original typewritten double-spaced copy, together with original illustrations with photostats or blueprints should be submitted.

**Authors and Discussers** should make their presentation as effective as possible. Remember your audience. Stress the salient features of the paper which are new or novel. When using slides, please turn toward the audience before speaking and raise your voice. Extemporaneous delivery is preferable to reading unless done slowly and emphasis is put in the proper places.

**Advance Copies of Papers** may be purchased by members at the registration desk at the uniform price of \$3.00 each (\$.60 each to nonmembers). Only numbered papers are available. Conference papers denoted by CP are intended for presentation only and are not available. 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 \$9.00 denominations are available for those who wish to avoid remittance by check or otherwise. Mail orders should be addressed to the AIEE Order Department, 33 West 39th Street, New York 18, N. Y. Most of the papers will ultimately be published as AIEE Proceedings and in the TRANSACTIONS.

Monday, August 22

7:30-9:30 p.m.—Advance Registration  
Main Lobby—Fairmont Hotel

Tuesday, August 23

8:30 a.m.—Registration  
Main Lobby—Fairmont Hotel

10:00 a.m.—Opening of Meeting  
Gold Room

George C. Tenney, Chairman

Welcome: T. C. McFarland, Chairman, San Francisco Section.

10:15 a.m.—General Session  
Gold Room

George C. Tenney, Chairman

Address: The Social and Economic Responsibilities of the Engineer. W. C. Mullendore, President, Southern California Edison Company, Ltd.

12:00 m.—Luncheon Meeting  
Terrace Room

Address: Can Engineers be Synchronized? James F. Fairman, President, AIEE. All members, guests and ladies welcome.

2:00 p.m.—Power Generation and Distribution  
Red Room  
W. R. Johnson, Presiding

CP.\*\* Electric Load Growth in California for the Next 20 Years. R. P. O'Brien, California Public Utility Commission.

CP.\*\* The New Swedish 380 Kv System Now Under Construction. A. Rusck, Swedish State Power Board.

49-200-ACO.\* Post-war Planning for High Voltage Transmission in Northern California. W. R. Johnson, Pacific Gas and Electric Company.

CP.\*\* Application of Series Capacitor and Double Conductors in the Swedish Long-Distance Transmission System. B. Rathsman, Swedish State Power Board.

2:00 p.m.—Air Transportation  
Vanderbilt Room  
S. D. Summers, Presiding

CP.\*\* A New Aircraft D. C. Generator Control System. G. A. Phillips, General Electric Company.

49-201-ACO.\* Directional Current Circuit Protector. C. E. Gagnier and E. L. Caustin, Carma Manufacturing Company.

49-202. Current Rating of Aircraft Cable. W. H. Askew, A. T. McClinton, Naval Research Laboratory.

CP.\*\* Predicting the Current Capacity of Aircraft Cable. Milton Schach, Naval Research Laboratory.

CP.\*\* 30 Volt DC and 120 Volt DC Aircraft Circuit Breakers. P. J. Reifschneider, B. S. Beall, III, General Electric Company.



## American Institute of Electrical Engineers

48-203. Protection of the Airplane Main Bus. D. W. Exner, Boeing Airplane Co. Presentation By Title Only.

### 3:30 p.m.—Ladies Tea

Green and Garden Rooms

### 7:00 p.m.—Meeting—District, Section, and National Officers and Student Counselors

Vanderbilt Room

## Wednesday, August 24

### 9:00 a.m.—Inspection Trip, Station "P" Steam Plant, Pacific Gas and Electric Company

### 9:30 a.m.—Home Heating Symposium

Garden Room  
J. C. Beckett, Presiding

CP.\*\* Electric Space Heating Methods. Stuart Forsyth, Westinghouse Electric Corporation.

CP.\*\* Effect of Increased Residential Space Heating on Power System Economics. G. E. Bishop, Coast Counties Gas and Electric Company.

CP.\*\* Power Distribution for Electric Space Heating. B. H. Martin, Tennessee Valley Authority.

CP.\*\* Heat Pump Experience in Portland, Oregon Area. W. E. Gordon, Portland General Electric Company.

CP.\*\* Electric Space Heating Load Control. J. C. Beckett, Wesix Electric Heater Company.

### 9:30 a.m.—Power and Instruments

Red Room  
Lloyd F. Hunt, Presiding

CP.\*\* Comparison of American and Foreign Practice of High Voltage Transmission and Generation. Lloyd F. Hunt, Southern California Edison Company.

49-203- When Should A Generator be Rewound? E. A. ACO.\* Crellin, Pacific Gas and Electric Company.

49-221. Insulator Flashover De-ionization Times as a Factor in Applying High Speed Reclosing Breakers. A. C. Boisseau, B. W. Wyman, W. F. Skeats, General Electric Company.

49-205. Deionization Time of High Voltage Fault-Arc Paths. E. J. Harrington, Bonneville Power Administration; E. C. Starr, Oregon State College.

49-206. A Transient Fault Locator for High Voltage Transmission Lines. L. R. Spaulding, C. C. Diamond, Bonneville Power Administration.

### 9:30 a.m.—Air Transportation

Vanderbilt Room  
H. F. Rempt, Presiding

CP.\*\* A 120-Volt DC Multiple Generator Aircraft Electrical System. J. D. Miner, R. J. Lusk, Westinghouse Electric Corporation.

49-207. Weight of the 120-Volt DC System Versus the 3-ACO\*. Phase, 208 Volt, 400 Cycle, AC System. W. F. Moore, General Electric Company.

## Pacific General Meeting

CP.\*\* A Generator Control and Protective Panel for 120 Volt DC Aircraft System. D. E. Fritz, O. C. Walley, Jack and Heintz Precision Industries, Inc.

49-219- D. C. Power Supplies and Starters for Starting Aircraft Jet Engines, P. T. Kunigonis, Jack and Heintz Precision Industries, Inc.

### 10:30 a.m.—Ladies Trip to Stanford University

### 1:30 p.m.—Inspection Trip to Radiation Laboratory—University of California

### 2:00 p.m.—Power Generation and Distribution

Red Room  
Noel B. Hinson, Presiding

49-208. Electrical Design Features, Steam Electric Generating, Station 'P'. F. S. Benson, Pacific Gas and Electric Company.

CP.\*\* Automatic Supervisory Control of Remote Hydroelectric Power Plants. R. F. Hind, C. L. Killgore, U. S. Bureau of Reclamation.

CP.\*\* Transformer Grounding Neutral Current Limitation with Neutral Voltage Shift During Ground Faults. Martin J. Lantz, Bonneville Power Administration.

49-209. Matching Electrical Characteristics of McNary Generators and Transformers with Bonneville Power Administration System. B. V. Hoard, Lewis Weiner, Bonneville Power Administration.

### 2:00 p.m.—Electronics and Communications

Garden Room  
R. D. Miller, Presiding

CP.\*\* Expanding the Pacific Coast Telephone Network. D. I. Cone, C. V. Fowler, Pacific Telephone and Telegraph Company.

49-210. A Proposal for Broad Band Coupling of Power Line Carrier Equipment. R. H. Miller, Pacific Gas and Electric Company.

49-211- Modern Carrier Current Test Equipment and Its ACO.\* Application. R. L. Brinton, Pacific Gas and Electric Company.

CP.\*\* Sound Powered Telephone Systems. A. P. Egerman, San Francisco Naval Shipyard.

### 2:00 p.m.—Air Transportation

Vanderbilt Room  
W. V. Boughton, Presiding

CP.\*\* Design of 120 Volt DC Aircraft Generators. A. Fisher, General Electric Company.

49-213. The Design of Insulating Systems for Small Rotating ACO.\* Machines by the Determination of Corona Starting Voltage. R. D. Jones, E. M. Stanbery, General Electric Company.

CP.\*\* Flexural Vibration in Aircraft Engine Accessories. Irving Kalikow, General Electric Company.

CP.\*\* A Modern Air Transport Generator Protection System. C. A. Toliver, Lockheed Aircraft Corporation.



48-214. Aircraft Carbon-Pile Voltage Regulators, Fundamentals and Design Improvements. B. O. Austin, H. H. C. Richards, Westinghouse Electric Corp. Presentation By Title Only.

7:30 p.m.—Meeting Student Branch Officers and Counselors—University of California Engineering Building, Room 112

## Thursday, August 25

9:00 a.m.—Inspection Trip—San Francisco Naval Shipyard, Hunter's Point

9:00 a.m.—Inspection of Pacific Gas and Electric Company Calculating Board  
Basement P. G. & E. Co. Bldg.  
245 Market Street

9:00 a.m.—Ladies Trip to Chinatown

9:30 a.m.—Industrial

Garden Room  
Ralph A. Hopkins, Presiding

CP.\*\* Steel and Electricity in Partnership at Columbia Steel's New Mill at Pittsburg, California. George L. Beaver, General Electric Company.

49-215. Series Capacitors to Correct Voltage Fluctuations Caused by Induction Motors. T. A. Bettersworth, Pacific Gas and Electric Company.

49-216. Dielectric Strength of Oil with Variations of Pressure and Temperature. W. G. Hoover, W. A. Hixson, Stanford University.

49-217. Electrical Design Features of Mission Substation, a High Voltage Subtransmission Station in San Francisco. Einar Nilsson, Pacific Gas and Electric Company.

9:30 a.m.—Conference on Aircraft Electrical System Protection

Vanderbilt Room  
Karl Martinez, Presiding

CP.\*\* Philosophy of Aircraft Electrical System Protection. L. R. Larson, Naval Research Laboratory.

10:00 a.m.—Conference Meeting on Calculating Board Operation

Room 1506, P. G. & E. Co. Bldg., 245 Market Street  
Dr. A. Tilles, Presiding

12:00 m.—Golf at Peninsula Golf and Country Club—San Mateo

1:30 p.m.—Inspection Trip to Mission Substation, Pacific Gas and Electric Company

2:00 p.m.—Conference on Aircraft Electrical Systems

Vanderbilt Room  
Karl Martinez, Presiding

CP.\*\* A New Approach to Aircraft Electrical Systems. E. F. Kotnik, Consolidated-Vultee Aircraft Corp.

7:30 p.m.—Banquet and Presentation of Golf Prizes  
Gold Ball Room  
Informal—Entertainment.

## Friday, August 26

9:00 a.m.—Inspection Trip to New Regional Automatic Toll Switching Center  
Pacific T. & T. Co., Franklin Bldg., Oakland

9:30 a.m.—Student Session

Garden Room  
Professor I. J. Sandorf, Presiding

CP.\*\* Topographic Presentation Radar. Walter Hirschberg, California Institute of Technology.

CP.\*\* Design of a Tit-Tat-Toe Machine. Robert Haufe, California Institute of Technology.

CP.\*\* Protection of Polyphase Machines from Unbalanced Voltages. Joe Ylarraz, University of Santa Clara.

CP.\*\* An Electronic Flux Meter. P. B. Gallagher, University of Santa Clara.

9:30 a.m.—Air Transportation

Vanderbilt Room  
C. F. McCabe, Presiding

49-223. Light Weight Aircraft Transformers. D. S. Stephens, Westinghouse Electric Corp.

CP.\*\* A Phase Adapter for Aircraft. F. W. Maxstadt, California Institute of Technology.

49-218. An Electric De-Icing System for Aircraft. E. W. Giloy, The Glenn L. Martin Co.

49-214. Lightning Stroke Damage to Aircraft. J. H. Hagenguth, General Electric Co.

49-224. Analysis of Relay Servomechanisms. D. A. Kahn, Curtiss-Wright Corp.

49-222. Development and Application of Electric Heating to De-Icing of Aircraft Propellers. J. H. Sheets, E. J. Sand, Curtiss-Wright Corp. Presentation By Title Only.

1:30 p.m.—Inspection Trip to Columbia Steel Company, Pittsburg, California

1:30 p.m.—Inspection Trip to Ames Aeronautical Laboratory, Moffett Field

2:00 p.m.—Electronics and Science

Garden Room  
D. I. Cone, Presiding

CP.\*\* The University of California Proton Synchrotron. G. M. Farly, University of California Radiation Laboratory.

CP.\*\* The Stanford Linear Accelerator. R. F. Post, Stanford University.

CP.\*\* The Outlook for the Nuclear Power Plant. Dr. I. Perlman, University of California Radiation Laboratory.

CP.\*\* Radiac Instruments. C. E. Parker, San Francisco Naval Shipyard.



**2:00 p.m.—Power Generation and Distribution**

Vanderbilt Room  
Waldo E. Enns, Presiding

- 49-220. 220 KV Transmission Line Tesla to Midway. E. M. ACO.\* Wright, Pacific Gas and Electric Company.
- 49-204. Some Oscillographic Methods of Investigating Mechanical and Hydraulic Conditions During Operation of Hydraulic Units. L. R. Engvall, Bureau of Reclamation.
- CP.\*\* Tests of Load Interrupter Switches for 115 KV Service. O. A. Demuth, H. L. Rorden, Bonneville Power Administration.
- CP.\*\* Field Tests on 115 KV Interrupter Switch.  
1. A. C. Schwager, Schwager-Wood Corporation.  
2. P. B. Hoye, Electrical Engineers Equipment Co.  
3. R. F. Gibbons, Pacific Electric Mfg. Corp.
- 49-212. Magnetic Heating of Transmission Line Clamps. V. L. Crabb, J. M. Sheadel, The Ohio Brass Co.
- CP.\*\* Conductor Armor For Reinforcement, Damping, Splicing and Repair. T. F. Peterson and J. C. Little, American Steel and Wire Co.

**2:00 p.m.—Student Session**

Room 104—Engineering Bldg.  
University of California  
Professor V. L. Palmer, Presiding

**6:30 p.m.—Student Dinner and Meeting**

University Cafeteria  
University of California

CP.\*\*—Conference paper; no advance copies are available; not intended for publication in TRANSACTIONS.

ACO.\*—Advance copies only available, not intended for publication in TRANSACTIONS.

**INSPECTION TRIPS**

The committee has arranged a group of inspection trips to important electrical installations in the San Francisco Bay Area. Each member, regardless of his interests, will find one or more trips appealing.

**Station P. Pacific Gas and Electric Company, San Francisco**

This station is the newest steam turbine generating plant of the P. G. and E. The second 110,000 kw generator has recently gone into service. All parts of this modern station will be inspected.

**Radiation Laboratory, University of California, Berkeley**

The U. C. Radiation Laboratory, which is the headquarters of the renowned Nobel prize winning physicist, Dr. Ernest O. Lawrence, has the world's largest Cyclotron, ten times

more powerful than any other nuclear accelerator. In addition to the Cyclotron, other facilities of this outstanding laboratory will be viewed.

**Network Calculator—Pacific Gas and Electric Co., San Francisco**

The new P. G. and E. a-c network calculator is of the most modern type. It includes facilities to simulate 14 generators, 164 line impedance units, 48 loads and 80 auxiliary units.

**U. S. Naval Shipyard, Hunters Point, San Francisco**

There are several unique electrical installations at the San Francisco Naval Shipyard. The nation's largest dry-dock includes an underground network distribution system; the yard has the world's mightiest electric crane; and the electronic and instrument shops are unsurpassed.

**Mission Substation, P. G. and E., San Francisco**

Mission Substation is a completely indoor, 110,000 volt station located in a heavily congested area in the City of San Francisco. The building itself and the installed equipment include many novel and unusual design features.

**Columbia Steel Company, Pittsburg, California**

Of particular interest at Columbia is the new continuous tin plate installation. Modern electric drives are used on the pickling line, cold reduction mill, electrolytic cleaning line, the temper mills, trimming and shearing lines, and tinning lines.

**Ames Laboratory, National Advisory Committee for Aeronautics, Moffett Field, California**

Ames Laboratory has ten wind tunnels in operation, the larger ones requiring 36,000 and 50,000 driving horsepower. The more important of these installations will be included in the inspection.

**Pacific Telephone & Telegraph Company, Oakland**

The new Oakland Telephone building now being completed will be the regional switching center for Northern California, Western Nevada and the Pacific Northwest. The installation of crossbar toll dialing equipment is the first west of Chicago and will work with similar installations in Philadelphia, New York, Boston, Cleveland and Chicago.

A nominal charge will be made to cover bus transportation on inspection trips.

**BANQUET**

An informal banquet with entertainment will be held at 7:30 p.m. on Thursday, August 25, in the Gold Room of the Fairmont Hotel. An excellent dinner will be served and will be followed by a program of first class entertainment, featuring stars of the stage and radio. This banquet promises to be the highlight of the social functions.

The total price will be only \$7.50 per person. It is requested that as many as possible make advance reservations.



**LADIES ENTERTAINMENT**

Three outstanding functions have been arranged for the ladies. Any one, or all of them may be attended as desired.

On the afternoon of Tuesday, August 23, there will be an informal tea in the Green and Garden Rooms of the Fairmont Hotel. The time will be 3:30; the charge, \$3.00.

On Wednesday, August 24, starting at 10:30 a.m., there will be an outing to Palo Alto and a visit to Stanford University. A specially arranged luncheon will be served at the unique tea shop, the Allied Arts. The objets d'art on display at this unusual shop will delight those attending. The complete trip, including lunch and transportation will cost \$3.00.

On Thursday, August 25, again starting at 10:30 a.m., there will be a tour of San Francisco, including a trip to Fisherman's Wharf, a boat cruise on beautiful San Francisco Bay, and a visit to Chinatown where luncheon will be served at the exotic Cathay House. San Francisco's Chinatown is the largest outside the Orient. The price will be \$3.00.

Recognizing that many ladies will want to shop or visit while in San Francisco, no entertainment function has been arranged for Friday.

Reservations should be made at the reservation desk. Note that a "package deal" is offered which includes all ladies' entertainment functions, for only \$6.00.

**STUDENT ACTIVITIES**

Several student meetings have been scheduled, including a dinner on Friday evening. For the convenience of visiting students staying at the International House a number of functions will take place on the campus of the University of California at Berkeley.

**GOLF**

The annual golf tournament will be held at the Peninsula Golf and Country Club in San Mateo County, on Thursday afternoon, August 25, at 12:00 noon. Players are assured of perfect golfing weather since the automatic air conditioning, normal in San Francisco in August, will be turned on.

Where desired, arrangements will be made for play in foursomes. All arrangements will be made by the Golf Committee at hotel headquarters.

Competition will be medal play on handicap. AIEE members will be playing for the John B. Fiske Cup. There will be other prizes for low gross and also low net, and numerous prizes based on handicaps worked out by the committee. The greens fee for the tournament will be \$3.50.

Transportation will be furnished to and from the course, when desired. Luncheon may be had at the club by prior reservation with the committee. Return to the Fairmont Hotel will be in ample time to prepare for the banquet where the prizes will be awarded.

**OFFICERS OF AIEE 1949-1950**

**President**

J. F. Fairman

**Junior Past Presidents**

B. D. Hull

Everett S. Lee

**Vice-Presidents**

J. L. Callahan

W. C. DuVall

A. H. Frampton

R. A. Hopkins

Richard McKay

G. N. Pingree

E. W. Seeger

W. J. Seeley

Victor Siegfried

C. G. Veinott

**Directors**

E. W. Davis

W. L. Everitt

C. W. Fick

R. T. Henry

N. B. Hinson

M. D. Hooven

F. O. McMillan

A. C. Monteith

E. B. Robertson

H. J. Scholz

E. P. Yerkes

**Treasurer**

W. I. Slichter

**Secretary**

H. H. Henline

**PACIFIC GENERAL MEETING COMMITTEES**

**General**

G. C. Tenney, *Chairman*

C. E. Baugh, *Vice Chairman*

J. A. Robinson, *Secretary*

W. F. Poynter, *Treasurer*

H. R. Brown

L. A. Buese

H. A. Cordes

B. Cozzens

M. M. Ewell

L. R. Gamble

C. P. Garman

G. H. Groh

O. A. Gustafson

J. A. Hale

C. M. Hart

N. B. Hinson

O. W. Hurd

T. Ingledow

T. Jordan

C. W. Keller

L. M. Klauber

S. E. McArthur

J. H. Polhemus

D. D. Smalley

J. H. Steede

C. F. Terrell



# American Institute of Electrical Engineers

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## Registration

J. L. Buckley, *Chairman*

H. S. Lane	A. W. Moody
A. M. Bohnert	J. L. Cattolica
C. E. Ingalls	A. R. Dole
C. A. Andrews	E. F. Sixtus

## Program

D. I. Anzini, *Chairman*

F. S. Benson	O. A. Demuth
J. S. Carroll	L. D. Kelly
G. E. Hulstede	R. A. Moulthrop
R. D. Miller	E. B. Hansen
W. L. Bryant, Jr.	R. C. Setterstrom
H. C. Glaze, Jr.	W. V. Boughton
F. O. Wollaston	H. H. Leigh

## Hotel

R. O. Bosemer, *Chairman*

J. R. Lazarus	R. E. Grady
C. A. Andrews	P. L. Morton
M. S. Barnes	F. H. Searight

H. G. Turner

## Entertainment and Reception

I. W. Borda, *Chairman*

A. D. Bragg	E. A. Crellin
F. E. Bodine	Dr. A. Tilles
E. M. Wright	R. D. Moody

## Hostess

Mrs. G. C. Tenney	Mrs. R. D. Moody
Mrs. F. E. Bodine	Mrs. A. D. Bragg
Mrs. E. A. Crellin	Mrs. C. E. Baugh
Mrs. A. Tilles	Mrs. I. W. Borda

## Student Activities

W. J. Warren, *Chairman*

V. L. Palmer                      I. J. Sandorf

## Trips and Local Transportation

W. R. Nodder, *Chairman*

R. F. Stuart	J. A. White
J. H. Klebanoff	W. K. Scott
W. G. Collins	C. T. Grauer

## Transportation

H. C. Verwoert, *Chairman*

F. W. Carlson	W. G. Meyer
A. D. Irion	R. Radford
E. R. Jones	W. Ridgway

C. R. Smith

## Sports

W. L. Winter, *Chairman*

J. L. Crellin	T. B. Jones
O. A. Gustafson	J. A. Longley

W. T. Neikirk

## Publicity

R. Bollaert, *Chairman*

K. V. Fletcher	D. A. Riechel
R. V. Davis	W. T. Connolly
E. Wolstencroft	O. K. Buck
R. C. Setterstrom	D. R. Hoopes



DOWNTOWN SAN FRANCISCO

*Moulin Studios*

