

# EDITOR'S PROFILE of this issue

*from a historical perspective ...*

with Paul Wesling, SF Bay Area Council GRID editor (2004-2014)

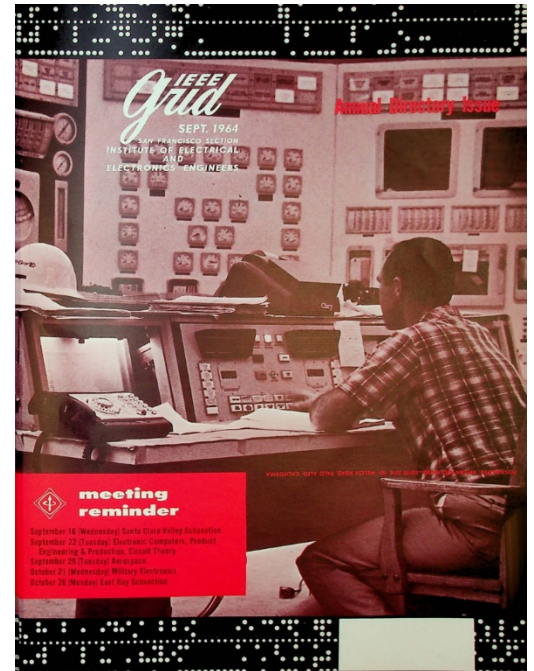
September, 1964:

Cover: Computer control is applied to a PG&E power plant in Contra Costa County for automatic startup and shut-down, with direct digital control sub-loop sampling data at discrete intervals. The computer had 65K words of drum memory and 8K words of core memory.

Page 3: Jean Helmke becomes the sole full-time secretary for IEEE, with her office at 701 Welch Road. She often assisted me in preparing mailings for the short courses I put on for the local IEEE over the years.

Page 8: William Davidow serves as vice-chair of the Electronic Computers chapter; he goes on to work at H-P and Intel and becomes a venture capitalist (Mohr Davidow Ventures). I made a pitch to him for startup capital for a project of mine at one point.

Page 12: Al Shugart gives a talk on the IBM 23321 Data Cell Drive. He goes on to start his own disk drive company, Shugart Associates.



Archive of available SF Bay Area GRID Magazines is at this location:

[https://ethw.org/IEEE\\_San\\_Francisco\\_Bay\\_Area\\_Council\\_History](https://ethw.org/IEEE_San_Francisco_Bay_Area_Council_History)

At time of scanning, the bound volumes are held by Paul Wesling.

July, 2021

Contact [p.wesling@ieee.org](mailto:p.wesling@ieee.org)

# IEEE *Grid*

SEPT. 1964  
SAN FRANCISCO SECTION  
INSTITUTE OF ELECTRICAL  
AND  
ELECTRONICS ENGINEERS

Annual Directory Issue

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## meeting reminder

September 16 (Wednesday) Santa Clara Valley Subsection  
September 22 (Tuesday) Electronic Computers, Product  
Engineering & Production, Circuit Theory  
September 29 (Tuesday) Aerospace  
October 21 (Wednesday) Military Electronics  
October 26 (Monday) East Bay Subsection



**Employment Office.** In the background stands a memory bank. To the left a high speed printer. Front and center stands our job generator at his console. In South Carolina a new distributor is signing a franchise. In Maine a retailer is enlarging his store. In Oregon a warehouseman is driving to work. Productive, active people, because from this office emanate trends for new products, detection of new markets and the creation of new employment opportunities. Yet, it's not so different from the way it used to be—there are still people, a water cooler, even the clock on the wall. Only now, hardly anybody watches it.



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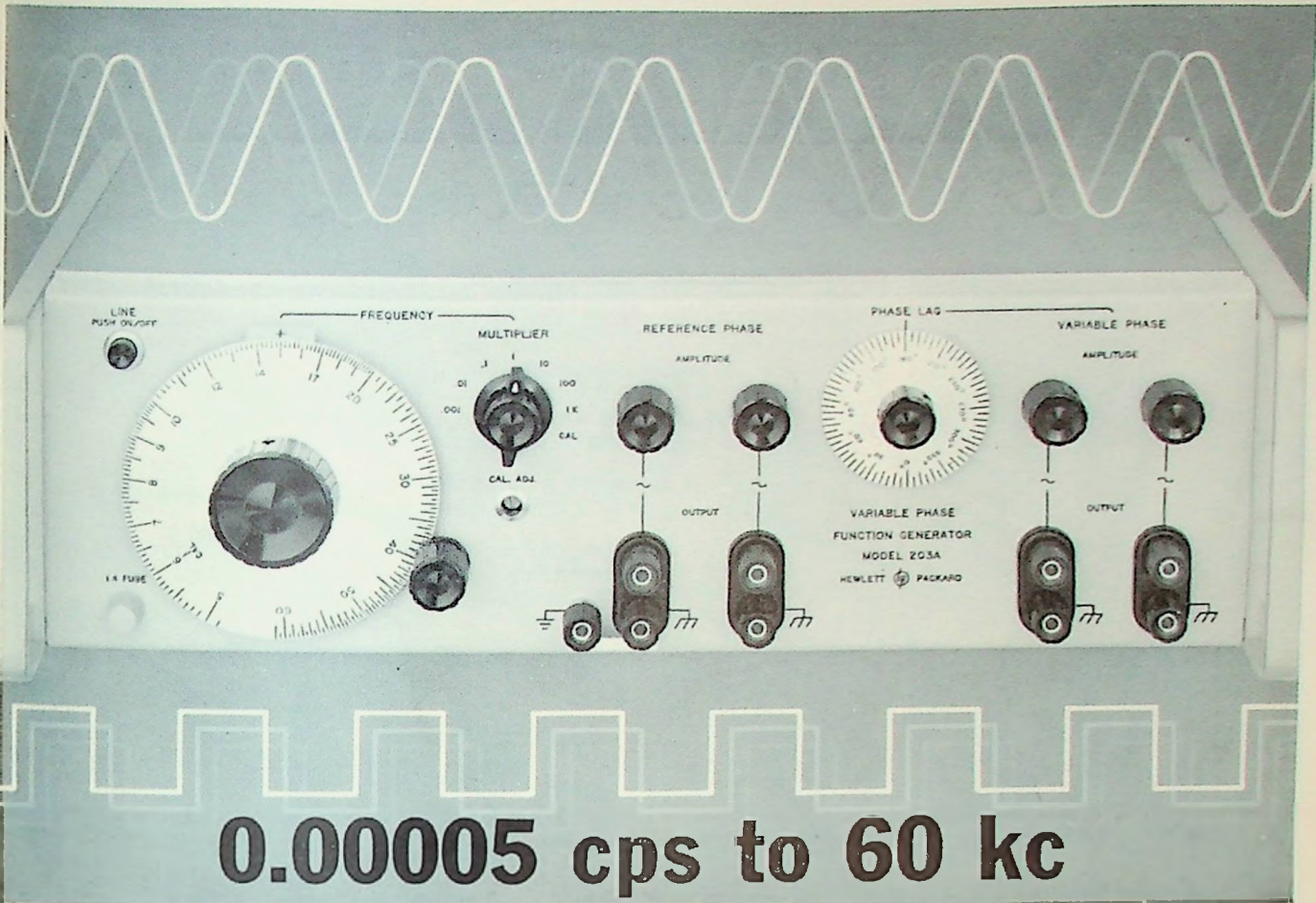
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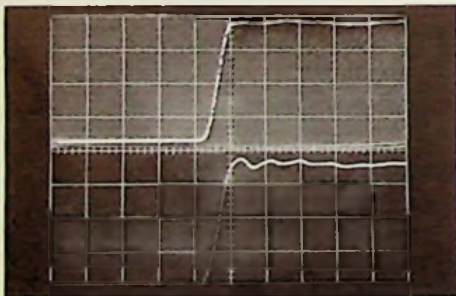
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contents

Chairman's Remarks—3  
Annual Section Directory—4  
Meeting Calendar—12  
Meetings Ahead—13  
Grid Swings—14  
Mfg./Rep. Index—15  
Section Notes—16  
Classified Advertising—16  
Advertisers Index—16

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from the chair

RE-EVALUATION AHEAD

During the 1964-65 program year now beginning, the executive committee of the section will study future needs to insure that the benefits of merger are fully realized. There has been some discussion of the advantage of district organization as an effective means of providing opportunity for greater member participation in institute affairs. This subject will be studied, and Charles Hochgesang of Bechtel has been appointed chairman of the organizational planning committee established especially for this purpose. The needs of our present subsections, the possibility of new subsections, and the organization of technical groups will be considered in relation to member interest. Any member having an idea for improved organization should contact Chuck Hochgesang at Bechtel, 362-4032, Ext. 2844.

During the past year the section experienced considerable difficulty in balancing its budget because of changes in the industry which diminished advertising revenue. As most of you know, we have a full-time paid staff to handle publication of the GRID and management of the section office. Last year our staff included two office secretaries to assist the executive secretary/editor. This year we will operate with one full-time secretary, Mrs. Jean Helmke, assisting Jim Warnock. Through careful management we expect to meet our commitments in operation of the GRID and in support of subsection and chapter activities. Howard Zeidler, Stanford Research Institute, 326-6200, is publications advisor. Your ideas and suggestions for the GRID and the bulletin board meeting notice should be directed to him.












The section membership now stands  
(Continued on page 16)

cover





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



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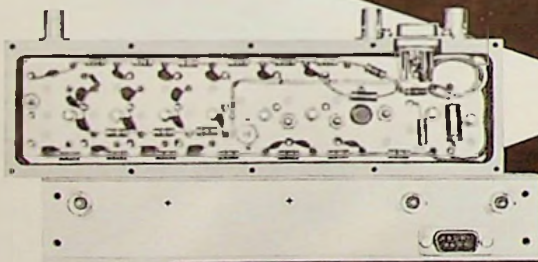
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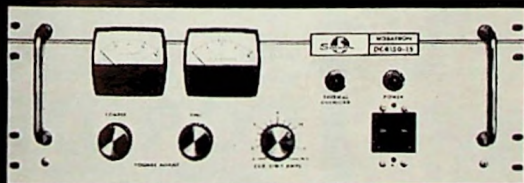
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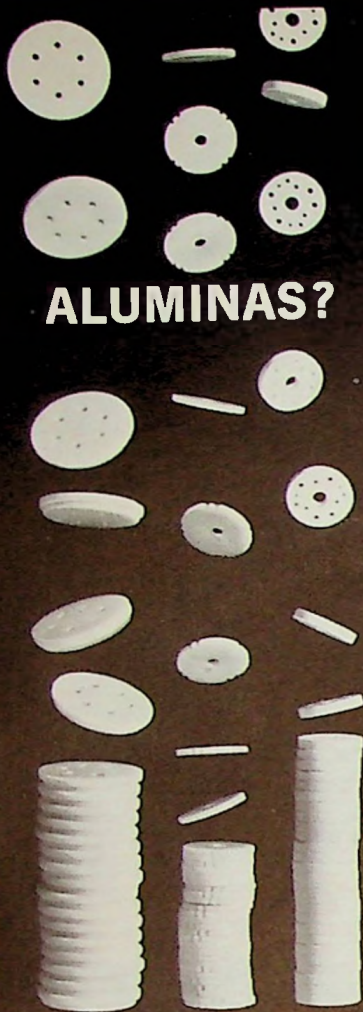


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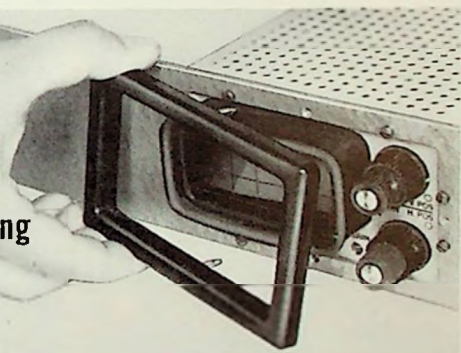
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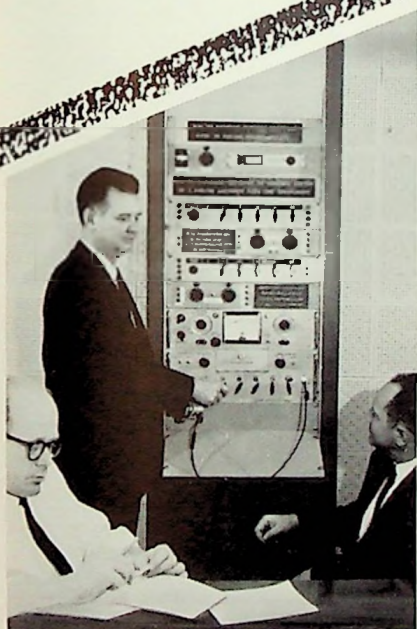
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## MEETING CALENDAR

### EAST BAY SUBSECTION

Monday, October 26

Pacific Gas & Electric computer-controlled Contra Costa steam plant generating units  
*Speakers, time, and place to be announced*

### SANTA CLARA VALLEY SUBSECTION

8:00 P.M. • Wednesday, September 16

#### Opportunities for defense industries in diversification

*Dr. Lester C. Van Atta, Chief Scientist, Lockheed Missiles and Space Company*

Place: Lockheed Auditorium, Bldg. 202, 3251 Hanover St., Palo Alto

Dinner: Although no formal dinner is planned, members who would like to meet Dr. Van Atta prior to the meeting are invited to be at Rick's Swiss Chalet for an informal dinner at 6.15

No reservation required

### GROUP CHAPTERS

#### Aerospace

8:00 P.M. • Tuesday, September 29

#### The Boeing supersonic transport (SST)

*Speaker to be announced by J. A. Aldrich, chief electrical engineer, United Airlines, and program chairman of Aerospace Group*

Place: Lockheed Missiles & Space Auditorium 202, 3251 Hanover St., Palo Alto  
No dinner

#### Circuit Theory

8:00 P.M. • Tuesday, September 22

#### The iterative synthesis of equalizers

*Dr. Gabor Temes, Manager, Electronics, SLAC, Stanford University*

Place: Ampex Cafeteria, 401 Broadway, Redwood City

Dinner: 6:00 P.M., Red Cottage Restaurant, 1706 El Camino Real, Menlo Park

Reservations: TH 5-6000, Ext. 3705, by September 21

#### Electronic Computers

8:00 P.M. • Tuesday, September 22

#### The IBM 2321 data cell drive

*Al Shugart, 2321 engineering project manager, IBM*

Place: General Electric Computer Lab, 310 Deguigne Drive, Sunnyvale

Dinner: 6:15 P.M., Old Plantation, El Camino and Bernardo, Sunnyvale

No reservations required

#### Military Electronics

8:00 P.M. • Wednesday, October 21

#### Effects of radiation on components

*Edwin A. Smith, senior research engineer, Lockheed Research Laboratory*

Place: Lockheed Auditorium, 202, 3251 Hanover St., Palo Alto

Dinner: 6:30 P.M., Rick's Swiss Chalet, 4085 El Camino Way, Palo Alto

#### Product Engineering and Production

8:00 P.M. • Tuesday, September 22

#### Topographical map making

*A discussion of the various processes involved in topographical map making followed by a tour of the facilities*

*Robert O. Davis, Pacific region engineer, topographical division, Geological Survey*

Place: Geological Survey Bldg. 3, 345 Middlefield Road, Menlo Park

No dinner

**DEFENSE DIVERSIFICATION**

Dr. Lester C. Van Atta, chief scientist of Lockheed Missiles and Space Co., will speak to the Santa Clara Valley Subsection on diversification within the military defense industry at the September meeting. As chief scientist he is senior advisor to Lockheed management on arms control and diversification.

Dr. Van Atta has served as special assistant for arms control to the Director of Defense, Research and Engineering, Office of the Secretary of Defense, and on a number of other government scientific advisory boards and committees. He will discuss the serious problems facing the defense industry as a result of military defense spending cutbacks, particularly as they apply to large weapon system managers. He will elaborate on diversification into nonmilitary programs as one answer to the problem.

The meeting provides an unusual opportunity to hear a recognized authority in the defense industry present his views on diversification planning.

meetings ahead

**EAST BAY SS**

The East Bay Subsection, made up of section members in the counties of Alameda, Contra Costa, and Solano, plans meetings on the following dates: October 26, November 23, January 25, March 22, April 26, and May 24. Watch the Grid for details.

meeting ahead

**ITERATIVE CIRCUIT THEORY**

Dr. Gabor C. Temes, a member of the SLAC engineering staff, will address the September meeting of the Circuit Theory chapter. He will present an iterative method for the optimal weighted Chebyshev approximation of arbitrary continuous functions with realizable rational expressions. The method is applicable to the design of equalizers, impedances, and artificial lines. Examples describing the synthesis of cable equalizer, simulator, and terminating networks will illustrate the usefulness of the method in practical design applications.

A graduate of the Technical University of Budapest, Eotvos University, and the University of Ottawa, Dr. Temes was employed by the Technical University of Budapest, the University of Sherbrooke, Measurement Engineering Ltd., and the Northern Electric R and D Laboratory.

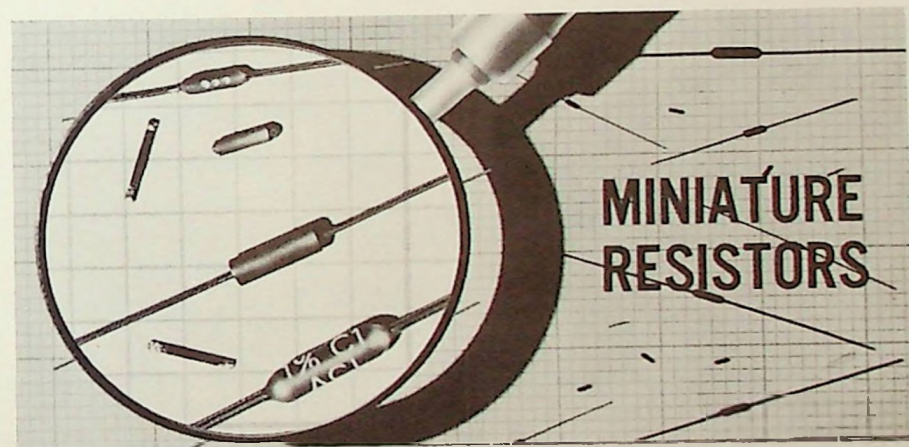
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SCE-1/8	0.125" 0.042"				X	10	110K
CE-1/8	0.135" 0.050"					10	110K
MCE-1/8	0.195" 0.070"	X	X	X		10	110K
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*meeting ahead*

**NEW CHAPTER ORBITS**

The first meeting of the newly formed chapter on Aerospace will be held on September 29. The subject is the Boeing Supersonic Transport (SST). Program chairman J. A. Aldrich, chief electrical engineer for United Air Lines, has obtained a well-informed speaker from Boeing Seattle for this presentation.

The FAA has funded both Lockheed and Boeing for SST designs. Very possibly FAA will request additional design studies from both contractors. The air lines favor two SST prototypes for evaluation. The Boeing design features a variable-sweep wing—relatively straight for take-off and landing, but sharply swept back for supersonic cruising. Should the wing remain in the fully swept aft configuration, due to some malfunction, the aircraft could still land with conditions similar to that of a Boeing 707 "coming in" without flaps. The Lockheed design features a fixed double-delta wing and a "drooped" nose section. Its 25-foot nose, or cockpit, is hydraulically lowered 15 degrees for landing and 10 degrees for take-off to facilitate visibility. The economic advantage of the "droop-snoot" is that the smooth pointed nose surface (during cruise) made possible by eliminating the conventional windshield reduces drag enough to add 12 more passengers to the payload. The chapter hopes to present the Lockheed SST as a meeting subject at a later date.

Guests are cordially invited.

*grid swings*

**IT IS REPORTED:**

George Nowack, Paul Ballentine, and Arthur Knop have been added to the field sales force of the telecommunications division of Secode Corporation, San Francisco.

John Fluke Mfg. Co., Inc., Seattle, has appointed Instrument Specialists, Inc., as exclusive sales representative throughout California for Fluke test and measurement instruments, with northern California offices in Sunnyvale under the direction of Jim Landis. The same firm will also handle the frequency equipment manufactured by Montronics, Inc., Bozeman, Montana, a Fluke subsidiary.

Dr. David C. Evans has been appointed professor of electrical engineering and acting director of the computer center on the Berkeley campus of the University of California. He also serves as acting principal faculty investigator for a \$797,000 computer

research project sponsored by the Advanced Research Projects Agency of the Defense Department.

Sidney Sternberg has joined the staff of Electro-Optical Systems, Inc., Pasadena, as vice president and general manager, having formerly served as chief engineer of the astro-electronics division of RCA, Princeton, N.J.

Bert L. Frescura has joined the research and development staff of Fairchild Semiconductor as an engineer in device development working on linear integrated circuit devices.

Robert H. Johnston, former manager of parts and service for Ampex Corporation, Redwood City, has been named product management manager for the corporation's computer products company in Culver City.

Alexander H. Dunbar has been appointed vice president, manufacturing, for FXR, Danbury, Conn., the RF products and microwave division of Amphenol-Borg Electronics Corp.

C. Gus Grant, formerly vice president-general manager, video and instrumentation division for Ampex Corp., has been appointed to the newly created position of vice president-operations with responsibility for three Ampex divisions—video and instrumentation, marketing, and consumer and educational products.

Thomas J. Kuehn has been appointed marketing manager for FXR's test equipment and waveguide components.

Merle J. Long has joined Electro-Optical Systems, Inc., Pasadena, as marketing manager.

*section inputs*

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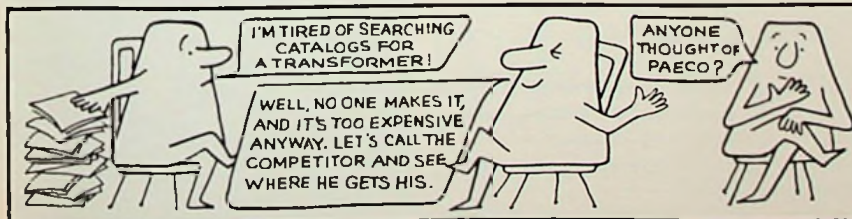
Plan to bring the benefits of IEEE membership to at least one of your engineering colleagues during the 1964-65 program year. Obtain an application blank from your company or area representative or the section office and help him complete it. Act now so that his application can be fully processed in the weeks ahead and he can receive all publications and benefits during 1965.

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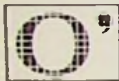
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## section notes

### BULLETIN BOARD NOTICES

Carrying the meeting calendar information that appears in Grid, but mailed early in the month, bulletin board notices are printed and distributed regularly by the section office to nearly 400 members who have agreed to post them on the 687 bulletin boards of their firms or organizations. If you would like to be added to the mailing list, call or write the section office, indicating how many copies you would like to post each month in locations where they will attract the attention of members who have missed the Grid.

## section notes

### REGULAR TUESDAY LUNCHEON

A special luncheon table is reserved every Tuesday at the San Francisco Engineers Club for members of IEEE. Club membership is not required and a cash ticket may be purchased from the cashier for \$2.00, including tax. No reservations are required.

IEEE members are invited to drop in for lunch whenever they are in the San Francisco area on Tuesdays. The club occupies the 15th floor at 206 Sansome St., San Francisco.

*(Continued from page 3)*

### MORE CHAIRMAN'S REMARKS

at approximately 7,600, including about 1,000 student members. We are growing somewhat faster than our southern neighbor and affiliate in WESCON, the Los Angeles District. Membership chairman this year is Ben Newnum of Western Electric, 739-S340, assisted by John Damonte, Dalmo Victor, 591-1414. Membership committee activities are intended to have broad coverage, and we are particularly anxious to reach those electrical and electronics engineers who should belong to IEEE as a part of their professional growth, but for unexplained reasons do not. Your effort to bring the benefits of membership to one or more of your colleagues during 1964-65 would bring great future benefit to the section. Application kits are available from your company or area membership representative, whose name may be obtained from Ben Newnum, John Damonte, or the section office.

In future remarks I will attempt to cover the scope of other section committees and some of the changes we believe to be appropriate. Much of the value of institute membership is derived from section, subsection, and chapter meetings and support of regional and national activities. We urge that you participate.

JOHN C. BECKETT

## Classified Advertising

### ADVERTISING RATES:

Members: \$15 for 1st col.-inch, \$10 for 2nd. \$5 for each additional. Non-members: \$20 for 1st col.-inch, \$15 for 2nd, \$10 for each additional. 10% frequency discount for 10 consecutive ads. None to exceed total of 4 col.-inches. Special type or logos not carried. Non-commissionable. Deadline: 25th of month.

Write or call: Ernesto A. Montano, IEEE Grid, Suite 2210, 701 Welch Rd., Palo Alto, 321-1332.

### POSITION WANTED

Aerospace Eng. graduating B.S. Jan. '65 Univ. Texas. Now employed UT Tech. Res. Asst. designing, fabricating, testing high lift devices. 5 yrs. Navy jet aviator, including 4 yrs. Aircraft Maint. Off. & Test Pilot. Age 29, married, 2 children, desire opportunity in No. Calif. G. W. Woehrman, c/o Willard Nott, 1485 Bayshore Blvd., S.F., 587-2091.

### EQUIPMENT FOR SALE

Edison Voicewriter model VPC 7342 including receiver model 77612, all attachments, supply of discs. \$175 or best offer takes. Excellent condition. To inspect, visit section office or call Mrs. Jean Helmke, 321-1332.

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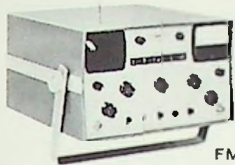
### Advertisers Index

American Components .....	13
Andrew Corp. ....	14
Benrus, Technical Products Div. ....	9
Brill Electronics .....	3
Brown, Wen .....	10
Cabaña .....	16
Costello & Co. ....	Cover 2
Dupont—Mylar Div. ....	5
Forum Personnel .....	8
General Radio .....	Cover 4
Hewlett-Packard .....	1
Instrumentation Exhibits .....	11
National Press .....	13
Nep/Con .....	12
Northern California Personnel .....	9
O'Halloran Associates .....	16
Paeco .....	15
RHG Electronics Laboratory, Inc. ....	6
Singer Co.—Metrics Div. Gertsch Instruments .....	Cover 3
Sorenson/O'Halloran .....	7
Tek-Ser/Tek-Stok .....	11
Tektronix, Inc. ....	2
TWA .....	10
Wesgo .....	8

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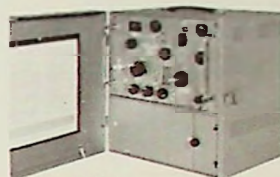
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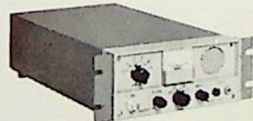
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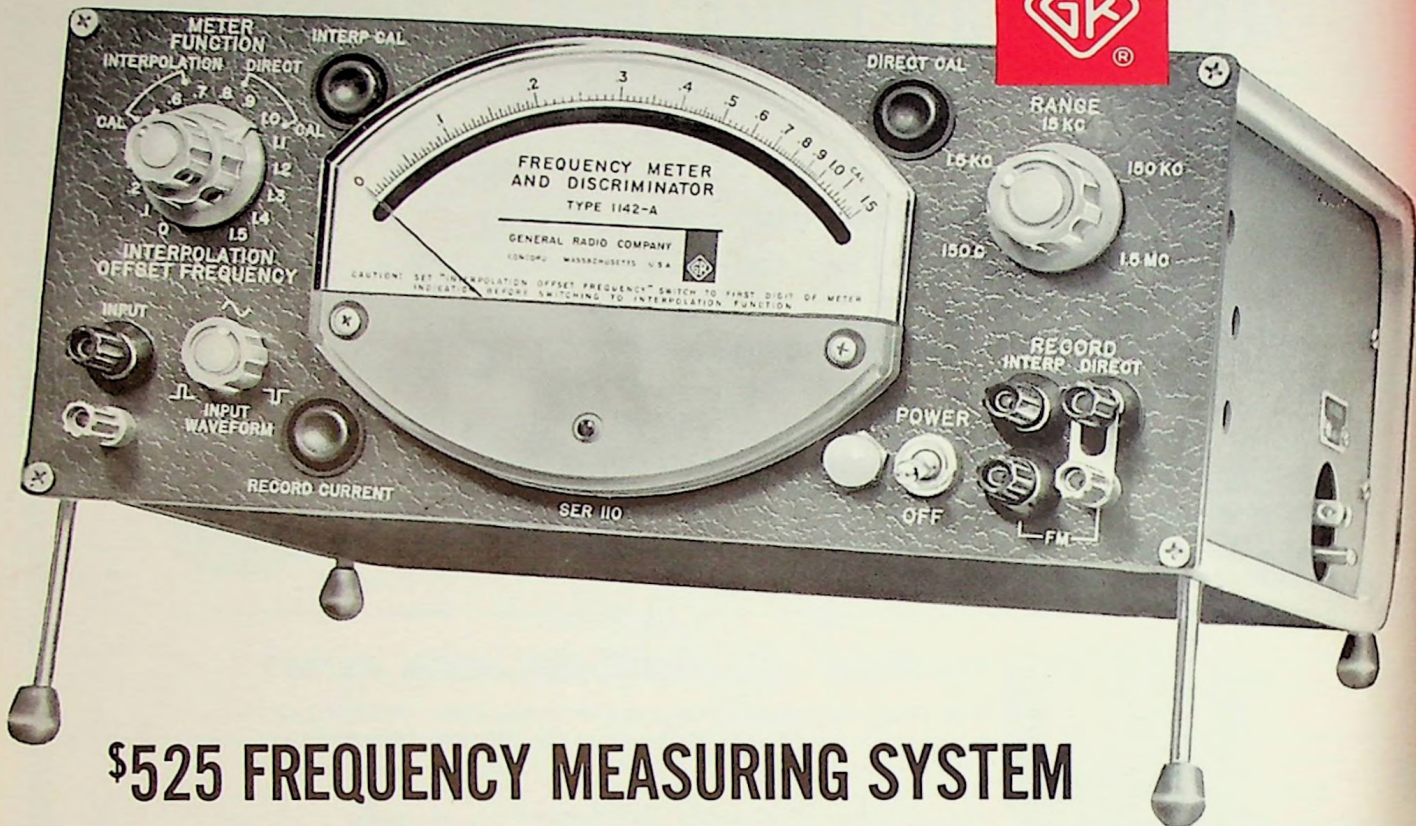
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