

AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS
1962 FALL GENERAL MEETING

Includes Registration for National Electronics Conference

PRINT NAME - ONE LETTER IN EACH BOX

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LAST NAME

FIRST NAME OR INITIALS

POSITION :

COMPANY NAME :

ADDRESS :

NUMBER - STREET

CITY - ZONE - STATE

CHICAGO HOTEL

ROOM NO.

REGISTRATION

MARK X IN PROPER BOXES

- | | | |
|--|--|------------------------|
| 1 | <input type="checkbox"/> MEMBER
AIEE OR COGNATE SOCIETY | \$ 6 |
| 2 | <input type="checkbox"/> NON-MEMBER | \$ 10 |
| 3 | <input type="checkbox"/> LADIES | \$ 2 NO FEE |
| 4 | <input type="checkbox"/> STUDENT | NO FEE |
| 5 | <input type="checkbox"/> GUEST | NO FEE |
| <input type="checkbox"/> I PLAN TO ATTEND
NATIONAL ELECTRONICS CONFERENCE | | |

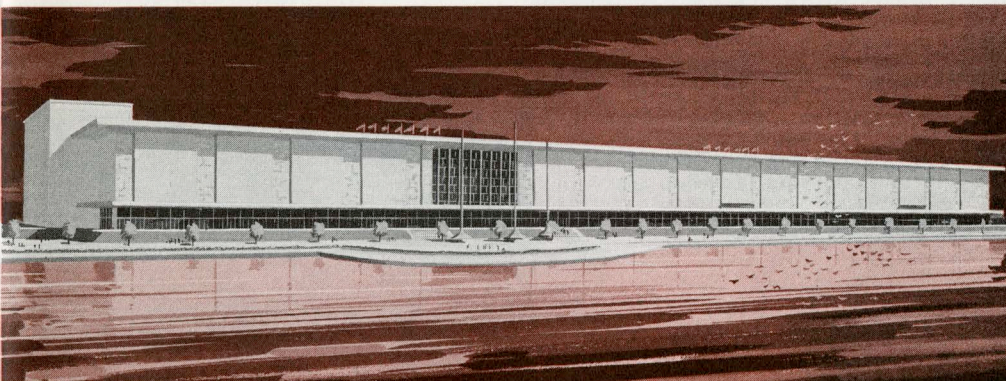
PLEASE X ONE BOX IN EACH COLUMN

	COMPANY BUSINESS	YOUR OCCUPATION
0	<input type="checkbox"/> MANUFACTURER - ELECTRONICS	0 <input type="checkbox"/> MANAGEMENT
1	<input type="checkbox"/> MANUFACTURER - NONELECTRONIC	1 <input type="checkbox"/> ENGINEER OR SCIENTIST RESEARCH & DESIGN
2	<input type="checkbox"/> BROADCASTING OR RECORDING	2 <input type="checkbox"/> ENGINEER - PRODUCTION & OPERATION
3	<input type="checkbox"/> CONSULTING RESEARCH & DEVELOPMENT	3 <input type="checkbox"/> ENGINEER - CONSULTING
4	<input type="checkbox"/> DISTRIBUTOR, EXPORTER, REPRESENTATIVE, JOBBER	4 <input type="checkbox"/> TECHNICIAN
5	<input type="checkbox"/> GOVERNMENT OR MILITARY	5 <input type="checkbox"/> PURCHASING
6	<input type="checkbox"/> PUBLISHING	6 <input type="checkbox"/> SALES OR ADVERTISING
7	<input type="checkbox"/> EDUCATION	7 <input type="checkbox"/> TEACHER
8	<input type="checkbox"/> UTILITY-TRANSPORTATION, COMMUNICATIONS, POWER	8 <input type="checkbox"/> STUDENT
9	<input type="checkbox"/> INSTALLATION OR SERVICE	9 <input type="checkbox"/> OTHER

PLEASE DO NOT BEND OR FOLD

ADVANCE PROGRAM

1962 **NEC**



At magnificent new McCormick Place, Chicago

OCTOBER 8-9-10

18th Annual

NATIONAL ELECTRONICS CONFERENCE AND EXHIBITION

PLAN TO ATTEND THE 18TH ANNUAL NEC • OCTOBER 8, 9, 10



1962 CONFERENCE THEME

"EDUCATION AND INDUSTRY— PARTNERS IN ELECTRONIC PROGRESS"

Ten Midwestern Universities will be participating in the Exhibition. Visitors will have an opportunity to learn what the universities are doing in the way of new research programs and services available to industry.



McCORMICK PLACE—Magnificent New Home for the National Electronics Conference

Chicago's new lakefront exposition center. Completely air-conditioned, this mammoth new building offers the latest in exhibition facilities. Visitors will enjoy dining in the luxurious glass walled Presidents Walk dining room with a panoramic view of Lake Michigan. Or you may prefer the self-service cafeteria with a capacity of 1,800 guests per hour. Comfortable, well lighted meeting rooms which accommodate more than 500 visitors and a complete theater within the building have been reserved for NEC use.

McCormick Place, located at 23rd street and the lake is convenient to public and private transportation. Acres of parking facilities are available.

EXHIBITS (no charge)

Over 500 electronic firms will display their latest products. On exhibition will be: test equipment, computers, components, instrumentation, electronic tools, technical publications, production equipment, raw materials, specialized electronic equipment, military and government special displays, amateur radio station, foreign exhibits.



CONVENIENT SHOW HOURS

Mon — 10:00* AM — 6:00 PM
Tues — 10:00* AM — 7:00 PM
Wed — 10:00* AM — 6:00 PM

*All technical sessions start at 9:30 AM

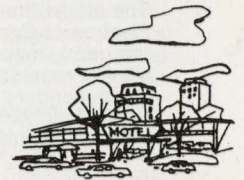
TECHNICAL SESSIONS

The broadest technical program in NEC history. 39 technical sessions, including panel discussions, seminars and university presentations. Program is geared to every level of engineering—special computer lecture series—exhibitors new product and development presentations. All technical sessions start at 9:30 AM in comfortable air conditioned meeting rooms located at McCormick Place.



FREE SHUTTLE BUS SERVICE

Bus service starts 8:30 AM at the Sherman House. First stop LaSalle Hotel; second stop Pick-Congress Hotel. Buses will be running through the full Conference period making it convenient for visitors to commute rapidly between the Loop area and McCormick Place.

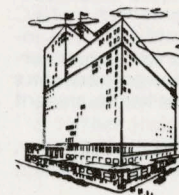


From southside hotels and motels 5 to 10 minutes.



From down town "Loop" hotels 5 to 10 minutes.

Official 1962
NEC Hotel



SHERMAN HOUSE - CHICAGO

The nation's leading forum on electronic research, development, application and education.



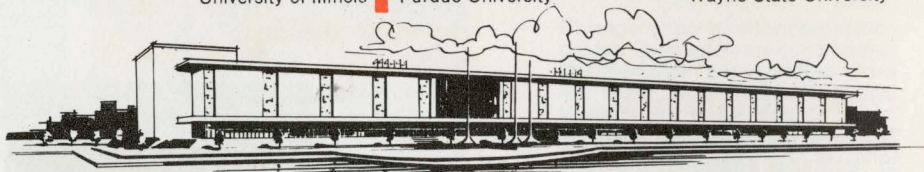
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Society of Motion Picture & Television Engineers
University of Michigan
University of Notre Dame
University of Wisconsin
Wayne State University



McCORMICK PLACE

NEC management has obtained the nation's finest exhibit facilities and arranged a top-level technical program for 1962. McCormick Place, Chicago's magnificent new exposition center will be the site of future NEC exhibitions. A perfect showcase for the ever expanding NEC exhibits, this spectacular \$35,000,000 structure offers the latest in

exhibit facilities. Over 500 electronic firms will be exhibiting their latest products in the large display area of McCormick Place. Various military and government agencies will display technical equipment of great interest to engineers. The three-day program also includes visits to Chicago area electronic and nuclear research facilities.

EDUCATION AND INDUSTRY

The official theme of the 1962 National Electronics Conference will be "Education and Industry—Partners in Electronic Progress." The theme points up the dependence of the future of electronic technology upon the quality of today's engineering, education and

research. A close relationship between the electronic industry and educational institutions will be promoted. Eleven NEC participating universities will outline their activities in exhibit booths and lecture rooms.

TECHNICAL AND SOCIAL ACTIVITIES

Highlights of the 1962 technical program include a Computer Workshop, Exhibitors New Product Program, University Presentations and a number of stimulating panel discussions. The 1962 technical program is the broadest in NEC history, providing current topics of interest geared to every level of engineering. Conference management has selected top-level authorities to present the program.

Visitors will also wish to participate in the full three-day social program which

includes Ladies Activities, Daily Lunches, Sightseeing Trips and Guided Tours, and an NEC Industry Cocktail Party.

Show hours have been arranged to make it convenient for NEC visitors to participate in the various social activities. Exhibitors, visitors and guests will be exchanging ideas and enjoying themselves at the NEC Cocktail Party, 5:45 PM in the Banquet Hall at McCormick Place on Monday, October 8th.

CONFERENCE REGISTRATION

All who can do so are urged to make advance registration by mail, using the attached card for that purpose.

Your advance registration should be mailed to National Electronics Conference, Inc., 228 North LaSalle Street, Chicago 1, Illinois prior to October 1st. Advance registration by mail cannot be accepted after that date.

The \$3.00 registration fee covers all technical sessions. Attendance at the luncheons and NEC Industry Cocktail Party is optional.

Advance registrations may be picked up at the registration desk at your convenience. The Hotel Sherman registration desk will be open Sunday, October 7th, from 4:00 PM to 8:00 PM.

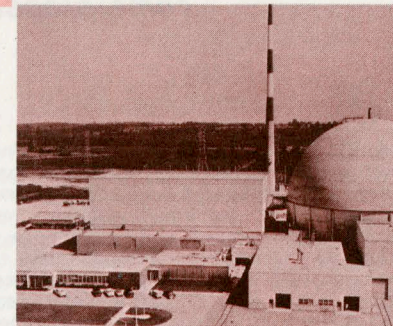
Advance registrations can be cancelled and refund made only if written notice is postmarked prior to Midnight October 1st.

JOINT AIEE-NEC REGISTRATION

NEC registrants may register for the AIEE Fall General Meeting, which will run concurrently at the Pick-Congress Hotel, by the payment of the highest single fee which would apply. This can be done at the NEC or AIEE. AIEE registration fees are \$6.00 for members and \$10.00 for nonmembers. Payment of AIEE registration will include NEC registration. NEC registration will be credited as \$3.00 part payment on subsequent AIEE registration.

HOTEL RESERVATIONS

Elsewhere in this program is a reservation form which may be used by those who wish to stay at the Sherman House. Include similar information in requests to other hotels.



TOURS

Tuesday, October 9th, Dresden Power Plant. Bus leaves McCormick Place at 2:30 PM.

NEC visitors will have an opportunity to view the facilities of the Dresden Power Plant. One of the latest nuclear power producing stations, the Dresden Plant has been recently completed and includes the latest instrumentation and control equipment.

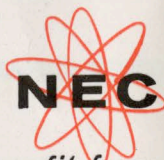
Wednesday, October 10th, Computer Division, U. S. Steel Company. Bus leaves McCormick Place at 2:30 PM. NEC visitors will tour the computer division of the U. S. Steel Company. A visit to an automated stock house, as well as a computer controlled plate mill will be included in the tour.

Exciting Ladies Program — Three days of pleasure filled activities have been planned. Ladies will register in the "House on the Roof" Sherman House. Registration Fee \$2.00. Ladies will be the guests of NEC in most activities.

NEC STUDENT ENGINEER PROGRAM

The 1962 Student Activities Committee has planned an exciting student program. Engineering students are admitted to the Conference exhibits and technical sessions at no charge. In this manner they have an opportunity to gain a further insight into their future profession. Special student lectures and demonstrations have been arranged.

1962 NEC



come prepared to enjoy and benefit from

HIGHLIGHTS

this most important electronic event

EXHIBITS

Over 500 electronic firms will be exhibiting their latest electronic products. Electronic products and services exhibited will include: • communications equipment • test equipment • raw materials • production machinery and equipment • instrumentation • computers • components • electro-mechanical devices • broad range of hardware and services for the electronic industry • technical publications • educational aids • government and military agency special exhibits • foreign exhibits.

UNIVERSITY EXHIBIT AREA

Ten universities will be participating with special displays and informative literature.

SPECIAL EXHIBITS

NEC, recognizing the great contribution of radio amateurs to electronics, join the Chicago Area Radio Council in celebrating "50 years of amateur radio." A complete operating amateur radio station will be on display. Other special exhibits—U. S. Dept. of Commerce—Bureau of Standards and Military Exhibit.

LUNCHEONS

Each day a Conference Luncheon will be held in the beautiful Chicago Room of McCormick Place. Visitors will enjoy listening to topics of major interest by outstanding luncheon speakers.

Tickets for these luncheons may be ordered by filling out the enclosed advance registration form. Luncheon speakers include: Governor Otto Kerner of Illinois, Henry T. Heald, President of the Ford Foundation, Dr. Jerome B. Wiesner, Special Assistant to President Kennedy.

SIGHTSEEING TRIPS

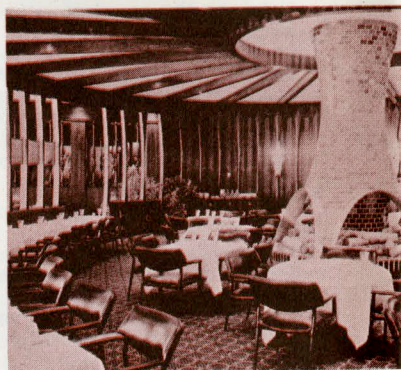
McCormick Place is located in a strategic spot where visitors have convenient access to unequalled cultural facilities outside the center itself. Just a short walk to the north lie the National History Museum, Shedd Aquarium and Adler Planetarium. Visitors may wish to avail themselves of the opportunity to take sightseeing pleasure boat trips on beautiful Lake Michigan. Boats dock at McCormick Place.



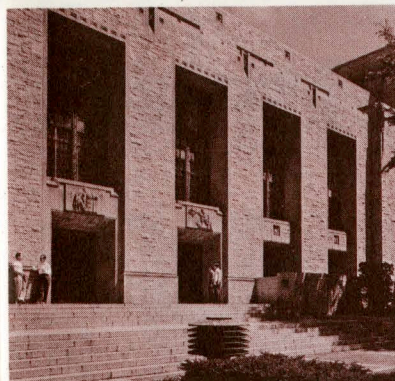
EXHIBITS

VALUABLE VISITOR DOOR PRIZES

NEC visitors each year enjoy qualifying for valuable door prizes. The 1962 door prizes include a Pleasure Boat, Hallicrafters Communications Receiver and Citizen's Band Transceivers.



DINING ROOM



UNIVERSITY PARTICIPATION

ANNUAL PROCEEDINGS

Engineers planning to attend the 1962 NEC will want to purchase a hard-bound volume of the 1962 Proceedings. The Proceedings is a permanent record of the complete technical papers presented at the Conference. Engineers attending technical sessions may, in this manner, follow the lecture directly from the text.

TECHNICAL PROGRAM

The meeting rooms for technical sessions are located within McCormick Place. This will provide a time-saving advantage to visitors. Technical session meeting rooms are comfortable, well-lighted and completely air-conditioned. The 1962 technical program is the most complete in NEC history—39 technical sessions, 125 papers and 6 panel discussions featuring top-level panelists.

Exciting Session Topics in technical program include: Energy Beams As Working Tools . . . Space Science . . . Medical Electronics . . . Infrared Applications . . . Aerospace and Navigational Electronics . . . Electronics in Hydrospace . . . and many more.

Panel Discussions include: "Reliability—Are We Spending Our Money Wisely?"—"The Consultant's Role in Research and Development"—"The Role of R and D in Future Profits"—"Euromart"—"Aerospace Control Systems"—"Timely Aspects of Space Science."

10-Minute Capsule Presentations. A special Electronic Preview session has been arranged which includes presentations of last-minute electronic developments. Topics of discussion are so new that they could not be included in this advance program.

University Program. Adding emphasis to the 1962 theme, "Education and Industry—Partners in Electronics Progress" will be ten universities participating in a university program. These universities, in addition to making presentations delineating university-industry cooperation and in-depth discussions of university research programs, will have exhibits which will include publications and technical equipment.

Digital Computer Workshop. A highlight of the Conference will be a series of digital computer seminars where you will learn the organization and programming of a digital computer.

Exhibitors New Product and Development Sessions. These seminars, which will be carried on concurrently with the technical sessions will permit manufacturers to make presentations covering new products and developments in their companies. The seminars will be carried out in a meeting room located in the exhibit hall and will be at no charge to NEC visitors.

Program at a Glance

SUNDAY, OCTOBER 7

NEC Registration, Sherman House (lobby) open	4:00 PM to	8:00 PM
CATS (Chicago Area Teleprinter Society) "CHI-RITY" Meeting McCormick Place, Meeting Room 7	10:00 AM to	6:00 PM
IRE/AIEE Student Chairman Reception, Knickerbocker Hotel		7:30 PM

MONDAY, OCTOBER 8

FREE express shuttle bus leaves Sherman House		8:00 AM
NEC Registration Desk at Sherman House (lobby) open	8:00 AM to	5:00 PM
NEC Registration Desk at McCormick Place, open	8:00 AM to	6:00 PM
Authors Breakfast, McCormick Place, Meeting Room "C"		8:30 AM
Industry Advisory Committee Breakfast, McCormick Place, Meeting Room "D"		8:30 AM
Ladies Program Registration, Sherman House, House on the Roof	9:00 AM to	12:00 N
IRE Professional Group on Education, McCormick Place, Meeting Room 9	9:00 AM to	12:00 N
Press Room, McCormick Place, Rooms 216-217	9:00 AM to	5:00 PM
Panel Discussion. McCormick Place, Little Theater "Reliability—Are We Spending Our Money Wisely?" IRE Professional Group on Reliability and Quality Control		9:30 AM
Technical Sessions, McCormick Place	9:30 AM to	12:15 PM
(all sessions concurrent)		
Energy Beams as Working Tools I, Meeting Room 6*		
University Presentations, Meeting Room 12*		
Digital Computer Applications and Components, Meeting Room 7*		
Solid State Applications—Varactors, Meeting Room 8*		
IRE Administrative Committee Professional Group on Circuit Theory Sherman House, Gold Coast Room 111	9:30 AM to	6:00 PM
Exhibits open at McCormick Place (no charge)	10:00 AM to	6:00 PM
Luncheon: McCormick Place, Chicago Room		12:30 PM
Presentations of NEC Annual Awards Speaker: Governor Otto Kerner, Illinois Title of speech: to be announced		
Exhibitors New Product Seminar, McCormick Place, Meeting Room BB (Exhibit Hall)	2:00 PM to	5:00 PM
Panel Discussion. McCormick Place, Little Theater "Euromart"		
International Activities Committee		2:30 PM
Technical Sessions, McCormick Place	2:30 PM to	5:00 PM
(all sessions concurrent)		
Energy Beams as Working Tools II, Meeting Room 6*		
University Presentations, Meeting Room 12*		
Programmed Education, Meeting Room 7*		
Microwave Applications, Meeting Room 8*		
Solid State Applications—General, Meeting Room 9*		
IRE Region Five Education Committee, Sherman House, Ruby Room 113	2:30 PM to	6:00 PM
Panel Discussion. McCormick Place, Meeting Room C "The Consultants Role in Research and Development"		
Scientific Apparatus Makers Association (SAMA)		3:30 PM
Exhibits close		6:00 PM
NEC Industry Cocktail Party, McCormick Place, Banquet Hall	5:45 PM to	7:15 PM
SAMA Dinner, McCormick Place, Meeting Room C		7:00 PM
IRE/AIEE Dinner. McCormick Place, Cafeteria	7:15 PM to	8:15 PM
IRE/AIEE Midwest Section Meeting, McCormick Place, Little Theater	8:30 PM to	9:30 PM

TUESDAY, OCTOBER 9

FREE express shuttle bus leaves Sherman House		8:00 AM
NEC Registration Desk at Sherman House (lobby) open	8:30 AM to	5:00 PM
NEC Registration Desk at McCormick Place, open	8:30 AM to	7:00 PM
ERA Workshop, McCormick Place, Meeting Room 11		8:30 AM
Title: "Forecasting Sales—Setting Quotas"		
Authors Breakfast, McCormick Place, Meeting Room "C"		8:30 AM
Ladies Program Registration, Sherman House, House on the Roof		9:00 AM

*Sessions Locations Subject To Change

ADVANCE REGISTRATION CARD

PLEASE REGISTER IN ADVANCE BY:

1. Filling out this card completely
2. Mailing card enclosing remittance

Check below the items desired:

- Registration Exhibit Only—no charge
- Registration for Technical Sessions NEC\$3.00
- Proceedings 1962, Vol. 18 (will be available for pickup at Conference) 5.00
- Monday Luncheon 3.50
- Monday Evening NEC Industry Cocktail Party 2.25
- Tuesday Luncheon 3.50
- Wednesday Luncheon 3.50
- Monday—Dresden Tour 1.00
- Tuesday—U. S. Steel Co. Tour .. 1.00

All above tickets will be available on call at the McCormick Place Registration Desk.

National Electronics Conference
18th Annual Conference
McCormick Place
Chicago, October 8-10, 1962

PLEASE PRINT ALL INFORMATION LEGIBLY

Name_____

Position_____

Company_____

Company Address_____

Company Products_____

AMOUNT ENCLOSED \$

MAIL THIS CARD AND REMITTANCE TO NEC:

National Electronics Conference, Inc.,
228 North LaSalle Street,
Chicago 1, Illinois

These Cards and Forms

SEE OTHER SIDE

for

are for your convenience

**ADVANCE
RESERVATION**

SEE ATTACHED CARD

for

**HOTEL
RESERVATION**

Thank You . . .

we'll be looking

for you at the

conference

SEE ATTACHED CARD

for

**NEC
PROCEEDINGS**

Now is the time to order your NEC Proceedings

Gentlemen:

Please send me a copy of the 1962 PROCEEDINGS, Volume 18 when they are available and bill me at a later date. Price \$6.00 each.

Also please send the following back issues:

Copies

- _____ @ \$5.00—Vol. 5 (1949) \$ _____
- _____ @ \$5.00—Vol. 7 (1951) \$ _____
- _____ @ \$5.00—Vol. 8 (1952) \$ _____
- _____ @ \$5.00—Vol. 9 (1953) \$ _____
- _____ @ \$5.00—Vol. 10 (1954) \$ _____

(PRINT PLAINLY)

Copies

- _____ @ \$5.00—Vol. 11 (1955) \$ _____
- _____ @ \$5.00—Vol. 12 (1956) \$ _____
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- _____ @ \$6.00—Vol. 14 (1958) \$ _____
- _____ @ \$6.00—Vol. 15 (1959) \$ _____
- _____ @ \$6.00—Vol. 17 (1961) \$ _____

NAME _____

*HOME ADDRESS _____

CITY _____

ZONE _____

STATE _____

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COMPANY _____

*ADDRESS _____

Bill me Bill my company Approved by _____

*Check preferred mailing address.

HOTEL RESERVATION

My Name _____

Date _____

Street _____

City _____

State _____

PLEASE TYPE OR PRINT

Reservation Manager
Hotel Sherman,
Chicago 1, Illinois

With respect to the National Electronics Conference Convention October 8 to 10, 1962, please make a room reservation for me for the following arrival date:

Date _____

PLEASE CONFIRM THIS RESERVATION

Room and Bath for One—per day	<input type="checkbox"/> \$ 7.50	<input type="checkbox"/> \$ 8.00	<input type="checkbox"/> \$ 9.00	<input type="checkbox"/> \$10.00
	<input type="checkbox"/> \$11.00	<input type="checkbox"/> \$12.00	<input type="checkbox"/> \$13.00	<input type="checkbox"/> \$14.00
	<input type="checkbox"/> \$15.00	<input type="checkbox"/> \$16.00	<input type="checkbox"/> \$17.00	<input type="checkbox"/> \$18.00
Double Bedroom with Bath for Two—per day	<input type="checkbox"/> \$11.50	<input type="checkbox"/> \$12.00	<input type="checkbox"/> \$13.00	<input type="checkbox"/> \$14.00
	<input type="checkbox"/> \$15.00	<input type="checkbox"/> \$16.00	<input type="checkbox"/> \$17.00	<input type="checkbox"/> \$18.00
	<input type="checkbox"/> \$19.00	<input type="checkbox"/> \$20.00	<input type="checkbox"/> \$21.00	<input type="checkbox"/> \$22.00
Twin Bedroom with Bath for Two—per day	<input type="checkbox"/> \$15.00	<input type="checkbox"/> \$16.00	<input type="checkbox"/> \$17.00	<input type="checkbox"/> \$18.00
	<input type="checkbox"/> \$19.00	<input type="checkbox"/> \$20.00	<input type="checkbox"/> \$21.00	<input type="checkbox"/> \$22.00
	<input type="checkbox"/> \$23.00	<input type="checkbox"/> \$24.00		
Alcove (Sitting room—Bedroom Combination)	from \$27.00	<input type="checkbox"/>		
Suite (Parlor, Bedroom and Bath)	from \$30.00	<input type="checkbox"/>		
Suite (Parlor, 2 Bedrooms and Bath)	from \$70.00	<input type="checkbox"/>		
Roll away beds—\$3.00 Additional				

(If no room is available at the rate requested, reservation will be made at the next available rate. Every bedroom has a private bath.)

Postage
Will Be Paid
by
Addressee

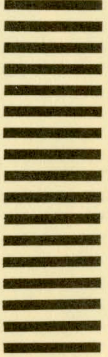
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National Electronics Conference, Inc.

228 North La Salle Street—Room 2104

Chicago 1, Illinois



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HERE

Reservation Manager

Hotel Sherman

Clark and Randolph Streets

Chicago 1, Illinois

NEC Exhibitors Coffee Hour, McCormick Place, Meeting Room "D"	9:00 AM
Press Room, McCormick Place, Rooms 216-217, open	9:00 AM to 5:00 PM
Technical Sessions, McCormick Place	9:30 AM to 12:15 PM
(all sessions concurrent)	
Modulation Theory 1, Meeting Room 6*	
Digital Computer Workshop, Meeting Room AA*	
Adaptive Systems, Meeting Room 7*	
Medical Electronics, Meeting Room 8*	
Microelectronics 1, Meeting Room 9*	
University Presentations 111, Meeting Room 12*	
Exhibitors New Product Seminar, McCormick Place, Meeting Room BB (Exhibit Hall)	10:00 AM to 12:00 N
Exhibits, McCormick Place, no charge, open	10:00 AM to 7:00 PM
Luncheon: McCormick Place, Chicago Room	12:30 PM
Speaker: Henry T. Heald, President Ford Foundation Title of speech: to be announced	
IRE Region 4 Meeting Committee, Sherman House, Life Room 108	2:00 PM to 5:00 PM
National Administrative Committee of the Professional Group on Military Electronics Meeting, McCormick Place, Meeting Room "C"	2:00 PM to 5:00 PM
Panel Discussion. McCormick Place, Little Theater	2:30 PM
"The Role of R & D in Future Profits" IRE Professional Group on Engineering Management	
Panel Discussion: McCormick Place, Meeting Room 12	2:30 PM
"The Role of Universities in Industrial Assistance"	
Technical Sessions, McCormick Place	2:30 PM to 5:00 PM
(all sessions concurrent)	
Modulation Theory 11, Meeting Room 6*	
Digital Computer Workshop 11, Meeting Room AA*	
Timely Aspects of Space Science, Meeting Room 7*	
Microelectronics 11, Meeting Room 8*	
Student Engineer Program	2:30 PM to 5:00 PM
"Microwave Magic and Satellite Communications" McCormick Place, Meeting Room BB	
Guided Tour to Dresden Power Plant	2:30 PM to 5:00 PM
Bus leaves McCormick Place	2:30 PM
Exhibits close	7:00 PM

WEDNESDAY, OCTOBER 10

FREE express shuttle bus leaves Sherman House	8:30 AM
Authors Breakfast, McCormick Place, Meeting Room "C"	8:30 AM
NEC Registration Desk, McCormick Place, open	8:30 AM to 6:00 PM
Ladies Program Registration, Sherman House, House on the Roof	9:00 AM
Press Room, McCormick Place, Rooms 116-117, open	9:00 AM to 5:00 PM
Panel Discussion. McCormick Place, Little Theater	9:30 AM
"Aerospace Control Systems" IRE Professional Group on Aerospace and Navigational Electronics	
Technical Sessions, McCormick Place	9:30 AM to 12:15 PM
(all sessions concurrent)	
Advanced Computer Technology, Meeting Room 6*	
Research Previews, Meeting Room 12*	
Infrared Applications 1, Meeting Room 7*	
Circuit and System Theory, Meeting Room 8*	
Electronics in Hydrospace, Meeting Room 9*	
Communications Systems, Meeting Room 10*	
Exhibits, McCormick Place, no charge, open	10:00 AM to 6:00 PM
Luncheon: McCormick Place, Chicago Room	12:30 PM
Speaker: Dr. Jerome B. Wiesner, Special Assistant to the President Title of speech: to be announced	
Exhibitors New Product Seminar, McCormick Place, Meeting Room BB (Exhibit Hall)	2:00 PM to 5:00 PM
Tentative: Special Address: McCormick Place, Little Theater	2:30 PM
Colonel John A. Powers, National Aeronautics & Space Administration	
Guided Tour to U. S. Steel Company	2:30 PM to 5:00 PM
Bus leaves McCormick Place	2:30 PM
Technical Sessions, McCormick Place	2:30 PM to 5:00 PM
(all sessions concurrent)	
Infrared Applications 11, Meeting Room 6*	
Trends in Aerospace Ground Equipment, Meeting Room 8*	
Engineering Writing and Speech, Meeting Room 9*	
Research Previews 11, Meeting Room 12*	
New Components, New Techniques, Meeting Room 10*	
Exhibits close	6:00 PM

*Sessions Locations Subject To Change

Technical Program

Monday Morning, October 8

ENERGY BEAMS AS WORKING TOOLS I

Sponsored by: AIEE Electronics Committee

Chairman: Peter B. Myers, Martin Company

- Electron, Ion, and Light Beams as Present and Future Materials Working Tools**, Helmut Schwarz and Anthony J. DeMaria, United Aircraft Corporation, Research Laboratories.
- Recent Electron-Optical Developments in the Recording Field**, P. H. Gleichauf, General Electric Company.
- Ion Beam Formation and Control for Reflected Ion Beam Deposition**, L. R. Bittman and J. Litton, Jr., Martin Company.
- Application of Electron Beam Techniques to Electronics**, J. W. Meier, Hamilton Standard Division, United Aircraft Corporation.
- Electron Beam Welding Applied to Today's Technology**, Robert Bakish, Electronics and Alloys, Inc.

UNIVERSITY PRESENTATIONS I*

Chairman: Warren B. Boast, Iowa State University

Presentations delineating university-industry cooperation, current interdisciplinary programs of the universities, in-depth discussions of university research programs, and discussion of intensive short-course opportunities for practicing engineers. Each university will be allotted approximately 45 minutes for its presentation.

DIGITAL COMPUTER APPLICATIONS AND COMPONENTS

Chairman: Roy O. Sather, Wayne State University

- Basic Principles of Some Pattern Recognition Systems**, L. Kanal, F. Slaymaker, D. Smith, and W. Walker, General Dynamics/Electronics.
- Electronics of a Precision Comparator**, W. Heacock, Fairchild Camera and Instrument Corporation.
- On the Digital Computer Classification of Geometric Line Patterns**, Herbert Freeman, New York University.
- Statistical Techniques in Circuit Optimization**, C. Clunies-Ross and S. S. Husson, Data Systems Division, International Business Machines Corporation.
- Design of Digital Control Systems**, K. S. Fu and R. M. Kline, Purdue University.

SOLID STATE APPLICATIONS—VARACTORS

Chairman: A. L. Aden, Motorola, Inc.

- Parametric Amplification by Phase Modulation**, D. K. Adams, Cooley Electronics Laboratory, University of Michigan.
- Varactor Fabrication for Microwave Applications**, W. F. Epperly, American Electronics Laboratories.
- Solid-State Microwave Signal Sources Using Varactor Harmonic Generation**, M. E. Hines, Microwave Associates, Inc.
- Cascading Low-Gain Parametric Amplifier Stages**, Carl Blake, Lincoln Laboratory, Massachusetts Institute of Technology.
- High Order Broadband Varactor Multiplier**, R. J. Bauer, Aircraft Armaments, Inc.

PANEL DISCUSSION

"RELIABILITY—ARE WE SPENDING OUR MONEY WISELY?"

Sponsored by: IRE Professional Group on Reliability and Quality Control

Chairman: George Rappaport, Warnecke Electronic Tubes, Inc.

Panel Members: James H. Allen, Aerospace Corporation, El Segundo, California; G. H. Beckhart, Radio Corporation of America, Moorestown, New Jersey; E. F. Dertinger, Raytheon Company, Waltham, Massachusetts; Mr. Benjamin Ellison and Mr. A. J. Finocchi, International Telephone and Telegraph Corporation, New Jersey; V. L. Grose, Litton Systems, Incorporated, Woodland Hills, California; Dr. William J. West, Autonetics, Downey, California; M. P. Smith, Minneapolis-Honeywell Regulator Company, St. Petersburg, Florida.

Panelists represent a variety of informed positions questioning the complacency with which reliability attainment is related to increased dollar spending. It is expected that the panel will be a controversial airing of the key question of how reliability efforts can be evaluated and justified economically.

NOON LUNCHEON

Speaker: Governor Otto Kerner, Illinois

Title: To be announced



Monday Afternoon, October 8

ENERGY BEAMS AS WORKING TOOLS II

Sponsored by: AIEE Electronics Committee

Chairman: Lorán R. Bittman, Martin Company

- Electron Beam Phenomena Associated with Perforated Wall Hollow Cathode Discharges**, H. L. L. vanPassen, E. C. Muly, and R. J. Allen, Martin Company.
- Cold Hollow Cathode Discharge Welding**, E. C. Muly, H. L. L. vanPassen, and R. J. Allen, Martin Company.
- Some Aspects of Laser Beam Welding**, Ronald L. Martin, Technical Research Group, Inc.
- High Power Laser for Welding Applications**, G. W. Dunlap and David Williams, General Electric Company.
- Metallurgical Applications of Lasers**, Richard D. Engquist and C. J. Bahun, Hughes Aircraft Company.

UNIVERSITY PRESENTATIONS II*

Chairman: H. W. Farris, University of Michigan

Presentations delineating university-industry cooperation, current interdisciplinary programs of the universities, in-depth discussions of university research programs, and discussion of intensive short-course opportunities for practicing engineers. Each university will be allotted approximately 45 minutes for its presentation.

PROGRAMED EDUCATION

Sponsored by: IRE Professional Group on Education

Chairman: Joseph J. Gershon, DeVry Technical Institute

- Teaching Machines in Programed Instruction**, (tutorial) L. M. Stolorow, University of Illinois.
- Undergraduate EE Via Video Tape and Closed Circuit TV**, W. H. Hayt, Jr., Purdue University.
- Use of Closed Circuit Television in Graduate Teaching**, D. L. Dietmeyer, R. A. Greiner, V. C. Rideout, and W. B. Swift, University of Wisconsin.
- Description and Use of a Computer-Controlled Teaching System**, D. L. Bitzer and P. Braunfeld, Coordinated Science Laboratory, University of Illinois.

MICROWAVE APPLICATIONS

Chairman: Joseph A. Boyd, Radiation Incorporated

- A Sum and Difference Interferometer System for HF Radio Direction Finding**, Albert D. Bailey and William C. McClurg, University of Illinois.
- Analysis of the Miniaturization of Resonant and Nonresonant Antennas Utilizing High "Q" Materials**, J. A. M. Lyon, A. T.

*These sessions will not be included in the *Proceedings*.

- Adams, and R. M. Kalafus, Cooley Electronics Laboratory, University of Michigan.
- Pattern Gain of Phased Arrays**, R. K. Thomas, Martin Company.
- Efficiency, Phase Shift and Power Limiting in Variable-Pitch Traveling-Wave Amplifiers**, J. E. Rowe and C. A. Brackett, Electron Physics Laboratory, University of Michigan.
- Microwave Modulation of Light with ADP**, M. C. Watkins, Aircraft Armaments, Inc.

SOLID STATE APPLICATIONS—GENERAL

Chairman: Harold W. Katz, General Electric Company

- Transient Response of Forward Biased Diffused P-N Junctions**, Howard K. Cooper, Pacific Semiconductors, Inc.
- A General Synthesis of Tunnel Diode Amplifiers and Sensitivity Minimization**, B. A. Shenoi, University of Minnesota.
- A New Feedback Broadbanding Technique for Transistor Amplifiers**, M. S. Ghausi, New York University, and D. O. Pederson, University of California.
- Asymmetrical Scattering from a Ferrite Cylinder**, J. C. Palaïs, Cooley Electronics Laboratory, University of Michigan.
- The High Speed Collector Steered Quinary Counter**, A. Hemel, Halicrafter Co., Research and Development Division.

PANEL DISCUSSION

"THE CONSULTANT'S ROLE IN RESEARCH AND DEVELOPMENT"

Sponsored by: Scientific Apparatus Makers Association, Industrial Instrument Section

Chairman: Douglas C. Strain, Electro-Scientific Industries

This program is intended to provide insight into the effective use of consultants in company sponsored research and development. It should be of interest to both managers of research and development programs as well as to the scientists involved.

Several leading consultants have been invited to serve on this panel to discuss effective ways in which their services can be utilized to enhance company research and development programs.

PANEL DISCUSSION EUROMART*

Chairman: W. C. Kotteman, Illinois Bell Telephone Company

A session sponsored by the International Activities Committee on the subject of EUROMART and its effect on electronics in the United States will be presented.

*These sessions will not be included in the *Proceedings*.

MODULATION THEORY I

Sponsored by: IRE Professional Group on Circuit Theory

- Chairman: W. R. Bennett, Bell Telephone Laboratories
- a. **On Comparing the Modulation Systems**, John C. Hancock, Purdue University.
 - b. **Hilbert Transforms and Modulation Theory**, F. F. Kuo and S. L. Freeny, Bell Telephone Laboratories.
 - c. **Signal-to-Noise Effects and Threshold Effects in FM**, Mischa Schwartz, Polytechnic Institute of Brooklyn.
 - d. **Problems and Progress in PCM**, M. R. Aaron, Bell Telephone Laboratories.

DIGITAL COMPUTER WORKSHOP I*

- Chairman: W. J. Eccles, Purdue University
- a. **Organization of a Digital Computer**, D. T. Herrman, Jr., General Precision, Inc.
 - b. **Programming of PINT**, (tutorial) W. J. Eccles, Purdue University.
 - c. **Problem-Oriented Languages**, C. H. Davidson, University of Wisconsin.

ADAPTIVE SYSTEMS

Sponsored by: AIEE Electronic Circuits and Systems Committee

- Chairman: George E. Karres, Martin Company
- a. **Design Capabilities of Model Reference Adaptive Systems**, H. P. Whitaker, Massachusetts Institute of Technology.
 - b. **Convergence Properties of a Model Reference Adaptive Control System from a Simple Stability Criterion**, J. Bongiorno, Polytechnic Institute of Brooklyn.
 - c. **Aerospace Vehicles and Adaptive Flight Control**, Milton Reed, Minneapolis-Honeywell Regulator Company.
 - d. **Pulse Frequency Modulation for Adaptive Control**, Gordon Murphy, Northwestern University, and R. L. West, McDonnell Aircraft Company.
 - e. **Adaptive Learning Systems**, J. E. Gibson, Purdue University.

MEDICAL ELECTRONICS

- Chairman: George Zacharopolous, Lafayette Clinic
- a. **Design Toward a Chronic Artificial Heart**, Victor W. Bolie, Iowa State University, and Jacob Kline, University of Rhode Island.
 - b. **Medical Electronics at the Mayo Clinic**, R. J. Hansen, Mayo Clinic.
 - c. **Comments Upon Problems Encountered in Electronic Monitoring of Uncooperative Patients**, John T. Martin, M.D., Mayo Clinic.

- d. **A Review of Air Ionization and Its Effects on Living Systems**, H. F. Schulte, Jr., University of Michigan.
- e. **A Computer System for Hospital Medical Record Data**, Vergil N. Slee, M.D., Professional Activities Study.

MICROELECTRONICS I

Sponsored by: AIEE Electronic Circuits and Systems Committee

Chairman: Arthur P. Stern, Martin Company

- a. **Design of Integrated Radio Frequency Amplifiers**, Glen Madland, Motorola, Inc.
- b. **Using Decision Theory Techniques for Optimum Selection of Thin Film Packaging Concepts**, Donald L. Brisendine, Martin Company.
- c. **Design and Performance of Tantalum Thin Film Circuits**, P. Thomas, J. S. Ekiss, J. Roschen, and M. Walker, Philco Corporation.
- d. **Thin Film Active Devices**, W. Tantraporn and K. K. Reinhartz, General Electric Company.
- e. **Integrated Circuitry Embodying Thin Film Passive and Active Components**, Thomas E. Harr, Martin Company.

UNIVERSITY PRESENTATIONS III—COMMENTS FROM INDUSTRY*

Chairman: Lawrence J. Giacoletto, Michigan State University

Presentations delineating university-industry cooperation, current interdisciplinary programs of the universities, in-depth discussions of university research programs, and discussion of intensive short-course opportunities for practicing engineers. Each university will be allotted approximately 45 minutes for its presentation. In this session an opportunity will be afforded an industry representative to picture the needs of industry in these cooperative endeavors.

NOON LUNCHEON

Speaker: Henry T. Heald, President of Ford Foundation

Title: To be announced



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MODULATION THEORY II

Sponsored by: IRE Professional Group on Circuit Theory

- Chairman: J. B. Cruz, Jr., University of Illinois
- a. **Transient Response of Narrow-Band Networks to Angle Modulated Signals**, J. J. Hupert, DePaul University.
 - b. **Transmission of FM Signals Through Linear Filters**, Donald T. Hess, Polytechnic Institute of Brooklyn.
 - c. **Frequency Feedback Demodulators**, L. H. Enloe, Bell Telephone Laboratories.
 - d. **Optimum Coherence Demodulation for Continuous Modulation Systems**, Andrew J. Viterbi, Jet Propulsion Laboratory, California Institute of Technology.
 - e. **Phase-Lock Demodulators**, B. J. Miller and L. L. Kocsis, Zenith Radio Corporation.

DIGITAL COMPUTER WORKSHOP II*

- Chairman: W. J. Eccles, Purdue University
- a. **Organization of a Digital Computer**, D. T. Herrman, Jr., General Precision, Inc.
 - b. **Programming of PINT**, W. J. Eccles, Purdue University.
 - c. **Problem-Oriented Languages**, C. H. Davidson, University of Wisconsin.

TIMELY ASPECTS OF SPACE SCIENCE*

- Chairman: F. B. Llewellyn, University of Michigan
- Four survey talks to bring everyone up to date on the applications of satellites in the following areas:
- a. **The Telstar Satellite System, Earth Station at Andover Maine**, Irwin Welber, Bell Telephone Laboratories.
 - b. **Navigation Satellite Progress**, A. B. Moody, National Aeronautics and Space Administration.
 - c. **Weather Satellites**, S. Fritz, U. S. Weather Bureau.
 - d. **Astronomy with the Aid of Satellites**, F. T. Haddock, Radio-Astronomy Laboratory, University of Michigan.

PANEL DISCUSSION "THE ROLE OF R AND D IN FUTURE PROFITS"

Sponsored by: IRE Professional Group on Engineering Management

Chairman: Dr. Gene Mathers, Purdue University

*These sessions will not be included in the *Proceedings*.

Panel Members: John Haanstra, International Business Machines Corp., White Plains, New York; P. E. Haggerty, Texas Instruments, Inc., Dallas, Texas; W. R. Hewlett, Hewlett-Packard Company, Palo Alto, California; Emery Rogers, Varian Associates, Palo Alto, California.

Each panelist has been asked to summarize what he considers to be the important factors leading to a well-balanced research and advance development program which will provide a satisfactory return to the corporation and will at the same time provide the future growth areas so essential to assure future profit position. Formal presentations, plus the opportunity to ask questions from the audience in areas not covered, will provide an unusual opportunity to study patterns of success in applications of practical research and development programs in various segments of the electronics industry.

MICROELECTRONICS II

- Chairman: James R. Black, Motorola, Inc.
- a. **Thin Film Technologies for Electronic Components**, W. D. Fuller, Lockheed Missiles and Space Company.
 - b. **The Impact of Microelectronics and Solid State Technology on Electro-mechanical Control Systems**, T. Mitsutomi and W. F. DeBoice, Autonetics.
 - c. **Semiconductor Networks for Use in Electro-Mechanical Control Systems**, C. Abbott, L. Bohan, L. Housey, and L. Regis, Texas Instruments, Inc.
 - d. **A Novel Solution to the Interconnection Problem in Microsystem Circuits**, T. L. Robinson, Cornell Aeronautical Laboratory, Inc.
 - e. **Thin Film Integrated Components for Telemetry Subsystems**, A. J. Nichols and W. D. Fuller, Lockheed Missiles and Space Company.

PANEL DISCUSSION THE ROLE OF THE UNIVERSITIES IN INDUSTRIAL ASSISTANCE*

Chairman: F. R. Bacon, Jr., University of Michigan

The present activities of Midwest universities to stimulate industrial growth in the Midwest.

MICROWAVE MAGIC AND SATELLITE COMMUNICATIONS* (Student Engineer Program)

Chairman: Dr. Alva Todd, Illinois Institute of Technology

Speakers will be Engineers of Illinois Bell Telephone Co.

ADVANCED COMPUTER TECHNOLOGY

Sponsored by: AIEE Electronic Circuits and Systems Committee
Chairman: Ferdinand P. Diemer, Martin Company

- a. **Research Input-Output Equipment for General Purpose Computers**, W. S. Holmes and H. M. Maynard, Cornell Aeronautical Laboratory, Inc.
- b. **A Bit Oriented Sequential Access Memory**, C. H. Fischer, Hughes Aircraft Company.
- c. **Two-Dimensional Spatial Filtering Research in General Purpose Computers**, W. D. Fryer and G. E. Richmond, Cornell Aeronautical Laboratory, Inc.
- d. **A Zero Loss Capacitor Storage Device**, C. H. Fischer, Hughes Aircraft Company.
- e. **HCM-202 Thin Film Computer**, M. M. Dalton, Hughes Aircraft Company.

RESEARCH PREVIEW I*

Chairman: Donald S. Gage, Northwestern University

National Electronics Conference is including in its 1962 program a type of session new to the Electronics field—sessions of short (10 minute) papers. The purpose of these sessions is to include information concerning the most recent developments in industrial and university laboratories.

INFRARED APPLICATIONS I

Sponsored by: AIEE Electronics Committee

- Chairman: Frank J. Kocsis, Jr., Servo Corporation of America
- a. **A Rugged, Low-Noise Solid State Infrared Detection System**, Matthew C. Baum, Mmemotron Corporation.
 - b. **Terrain Mapping by Use of Infrared Radiation**, David E. Harris and Casper L. Woodbridge, HRB-Singer, Inc.
 - c. **An Infrared Signal Generator**, Arthur Glaser and Allan Ross, Telewave Laboratories, Inc.
 - d. **Infrared Hot Box Detectors**, William M. Pelino, Servo Corporation of America.

CIRCUIT AND SYSTEM THEORY

Chairman: S. Louis Hakimi, Northwestern University

- a. **Theoretical Basis and Practical Implications of Band-Pass Sampling**, C. L. Ackerman, C. S. Miller, and J. L. Brown, Jr., Pennsylvania State University.
- b. **Discrete Orthonormal Exponentials**, T. Y. Young and W. H. Huggins, Johns Hopkins University.
- c. **Adaptive System Identification by State Variable Operations**, H. M. Estes, U. S. Air Force Academy.
- d. **Analysis and Design of Sampled-Data Systems Via State Transition Flow Graphs**, B. C. Kuc, University of Illinois.
- e. **Miyata's Method Applied to Active Network Synthesis**, R. E. Thomas, U. S. Air Force Academy.

PANEL DISCUSSION AEROSPACE CONTROL SYSTEMS*

Sponsored by: IRE Professional Group on Aerospace and Navigational Electronics

Chairman: Norman Winter, Motorola, Inc. The rapid advancement in control system concepts, both for air traffic and control and military command and control applications, has introduced new requirements for electronic communication, navigation, surveillance, and computing equipments. Particular emphasis will be laid on new systems and system concepts through reports from prominent speakers actively engaged in this field.

- a. **Air Space System Design and the Resolution of Conflicts**, Dean F. Babcock, Stanford Research Institute.
- b. **Air Traffic Control System Plans**, Neal Blake, Federal Aviation Agency, Aviation Research Service, System Design Team.
- c. **Flight Line of the Future**, Harold Johnson, Directorate of Telecommunications, Air Staff, USAF.
- d. Panel discussion.

ELECTRONICS IN HYDROSPACE

Sponsored by: IRE Professional Group on Military Electronics

Chairman: R. L. Miller, University of Chicago and Woods Hole Oceanographic Institute

- a. **New Concepts for Intense Sound Transducers**, R. R. Whymark, Armour Research Foundation.
- b. **Airborne Bathythermograph System**, G. Gruener and A. Leumpert, Sparton Electronics.
- c. **Electronic Instrumentation for the Great Lakes Water Quality Study**, J. L. Verber, U. S. Public Health Service.
- d. **The Hall Compass**, E. A. Keller, Motorola, Inc.
- e. **Radio Communication Within the Hydrosphere**, R. C. Becker, Amphenol-Borg Electronics Corporation.

COMMUNICATION SYSTEMS

Chairman: Ira Jacobs, Bell Telephone Laboratories

- a. **Decision Theory**, John C. Hancock, Purdue University.
- b. **Signal Design**, Robert M. Lerner, Lincoln Laboratory, Massachusetts Institute of Technology.
- c. **Adaptive Systems**, Leonard S. Schwartz, New York University.
- d. **Coding**, Irwin M. Jacobs, Massachusetts Institute of Technology.

NOON LUNCHEON

Speaker: Dr. Jerome B. Wiesner, Special Assistant to the President
Title of Speech: To be announced



INFRARED APPLICATIONS II

Sponsored by: AIEE Electronics Committee

- Chairman: T. E. Harr, Martin Company
- a. **Some Electronics Problems in Infrared Systems Design**, Frederick G. Whelan, Martin Company.
 - b. **Optical Techniques for Target Enhancement and Background Rejection**, R. S. Neiswander, The TE Company.
 - c. **Recent Advances in Infrared Detectors for the 8.5—13.5 Micron Spectral Band**, Jack K. Lennard, Martin Company.
 - d. **Status Report on Thermistor Bolometers**, Israel J. Melman and Irving M. Meltzer, Servo Corporation of America.

SIGNAL THEORY

Sponsored by: AIEE Communication Theory Committee

- Chairman: Herbert Sherman, Lincoln Laboratory, Massachusetts Institute of Technology
- a. **The Space of Essentially Time and Band-limited Signals**, H. O. Pollak, Bell Telephone Laboratories.
 - b. **Orthonormal Exponentials**, D. C. Ross, IBM Federal Systems Division.
 - c. **A Note on Orthogonal Digit Coding**, L. Kurz, New York University.
 - d. **Two Dimensional Signal Representation Using Prolate Spheroidal Functions**, D. A. Landgrebe and G. R. Cooper, Purdue University.

TRENDS IN AEROSPACE GROUND EQUIPMENT

Chairman: Harold Flowers, Avco Corporation

- a. **Analog Checkout of Large Systems—The Digital Solution**, Leo Kaye, Martin Company.
- b. **Digital Computer Checkout of Inertial Navigation Systems**, J. L. Henry, Autonetics.
- c. **Use of Integrated Circuitry in Digital System**, Lloyd Thayne, Martin Company.
- d. **A Simulation—Calibration System for Space Flight, Landing and Rendezvous Control Systems**, William J. Hollandsworth, Missouri Research Laboratories, Inc.

ENGINEERING WRITING AND SPEECH

Sponsored by: IRE Professional Group on Engineering Writing and Speech

- Chairman: A. A. Canfield, Bendix Corporation
- a. **The Conditions of Communication**, Joseph D. Chapline, Philco Computer Division.
 - b. **Reports as a Measure of Competence**, Walter B. Dennen, Radio Corporation of America.

*These sessions will not be included in the Proceedings.

- c. **Better Report Writing Pays**, Robert M. Woelfle Bendix Mishawaka Division.
- d. **The Poor Writer**, R. G. Marolf, Research Laboratories, General Motors Corporation.

RESEARCH PREVIEW II*

Chairman: Donald S. Gage, Northwestern University

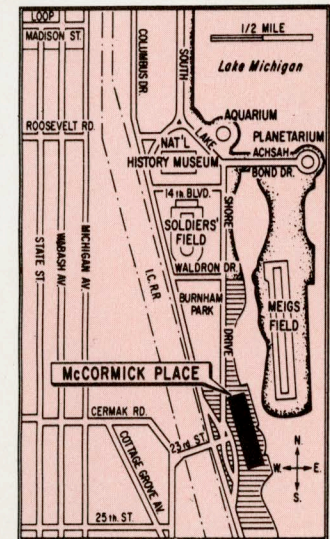
National Electronics Conference is including in its 1962 program a type of session new to the Electronics field—sessions of short (10 minute) papers.

The purpose of these sessions is to include information concerning the most recent developments in industrial and university laboratories.

NEW COMPONENTS, NEW TECHNIQUES

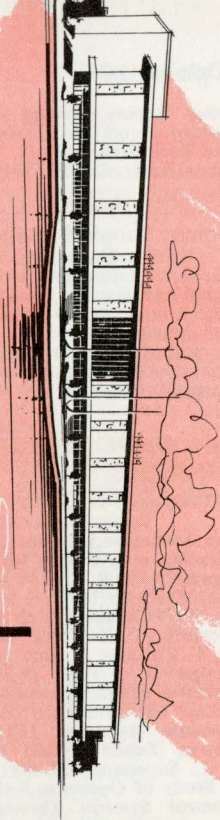
Chairman: Daniel G. Dow, Varian Associates

- a. **The Avalanche Injection Diode and Its Application as a Switch for High Frequency Signals**, John R. Szedon and Angel G. Jordan, Carnegie Institute of Technology.
- b. **An Anti-Storage Clamp and a Method of Increasing I_p/I_v Ratio of Tunnel Diodes**, W. T. Rhoades, Hughes Aircraft Company.
- c. **Design of a High Performance S-Band Varactor Frequency Multiplier**, L. Kenneth Staley, The Bendix Corporation.
- d. **Ceramic Bandpass Filter with Unsymmetric, Tuned Hybrid Lattice Structure**, F. L. Sauerland, Cleveite Corporation.
- e. **A Study of Optimum Switching of On-Off Control Systems Through Logic**, O. I. Elgerd, University of Florida, and L. B. Scheiber, AC Spark Plug Division, General Motors Corporation.



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