

The
American Institute of Electrical Engineers
cordially invites you
to attend the

13th ANNUAL APPLIANCE TECHNICAL CONFERENCE

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MAY 22 and 23, 1962



DESHLER-HILTON HOTEL COLUMBUS, OHIO

Sponsored by
AIEE Domestic Appliance Committee
Columbus Section AIEE

WELCOME

The 13th Annual National Appliance Technical Conference is being held in Columbus, Ohio, a center of appliance and appliance control manufacture.

This Conference is sponsored for the first time by the Domestic Appliance Committee as a full status Committee of A.I.E.E. and serves to advance the theory and practices of Electrical Engineering and its allied arts and sciences in their application to family living needs in the home environment.

Engineers and others interested in the appliance industry will hear a series of technical papers on topics of current interest and will have an opportunity to inspect one of the industries in the Columbus area engaged in the production of appliances and appliance controls. Non-members are welcome at the conference.

Those who are interested in furthering technical activities in the appliance field are encouraged to contact committee members and to participate in the planning of future conferences. Papers for next year's conference are invited at this time.



REGISTRATION

Tuesday, May 22, 1962 7:30 A.M. — 9:00 A.M. Wednesday, May 23, 1962 8:00 A.M. — 9:00 A.M.

The registration desk will be open on a limited basis during all sessions for your convenience as a message center.

REGISTRATION FEES

Members		\$6.00
Non-mem	bers	\$8.00

Tickets for luncheons and inspection trips will be available at the Registration Desk.

Please register in advance. A conference registration card and hotel registration card are enclosed for your convenience. Advance payment checks should be made out to Mr. J. H. Kaltenecker, Finance Chairman A.I.E.E., enclosed with the card and mailed to Mr. L. A. Rea, The Ohio Bell Telephone Company, 221 North Front Street, Columbus 15, Ohio.

PROGRAM

Tuesday May 22, 1962

- 7:30 to 9:00 A.M. Registration—Parlors 10, 11 and 12
- 9:00 A.M. Session I Hall of Mirrors
 - PRESIDING CHAIRMAN: John Liebermann, Chief Engineer, Ranco Incorporated, Columbus, Ohio.
 - WELCOME ADDRESS: Patrick N. Curtis, Chairman, Columbus Section, AIEE; Westinghouse Electric Corporation, Columbus, Ohio.
 - KEYNOTE ADDRESS: John W. Craig, Vice President and General Manager, Major Appliance Division, Westinghouse Electric Corporation, Columbus, Ohio.
- Flashing of Electric Range Surface Units, D. E. Clapp, Research Director, Controls Division, The Proctor-Silex Corp. Philadelphia, Pa.

The advantages of an economical control system that overcomes heating element starting inertia and also provides infinite control of rated wattage.

- Program Systems in Electrically Controlled Gas
 Ovens, M. L. Miller, Project Engineer, The
 Wilcolator Company, Elizabeth, New Jersey.
 Tracing the evolution of gas oven control which
 has culminated in demands for flexibilities possible only with electric systems. A discussion
 of modern program controls and other electric control components.
- Design Parameters and Circuit Requirements of Appliance Lamps, J. C. Heffernan, Senior Engineer, Measurements Laboratory, Sylvania Lighting Products, Danvers, Mass. The development and application of special appliance lamps that permit the use of simplified ballasts and other economies.
- New Textiles a challenge to the Appliance Engineer, A. R. Martin, Senior Research Chemist, Whirlpool Corporation, St. Joseph, Michigan. New materials have presented new demands on the appliance engineer: two possible solutions for an almost ideal machine are discussed and specifications for an even better answer are presented.
- 12:00 to 1:30 P.M.—Luncheon Spanish Room. PRESIDING: P. N. Curtis, Chairman, Columbus Section, AIEE.

AIEE Domestic Appliance Committee Activities—B. F. Parr, Chairman, General Applications Division.

1:45 P.M. - Session II - Hall of Mirrors

PRESIDING CHAIRMAN: J. C. Burdett, Senior Engineer, Westinghouse Electric Corporation, Lima, Ohio.

- Heat Pumps, Their Applications and Controls, R. C. Lower, Supervisor, Package Unit Development, and T. A. Lutz, Supervisor Electrical Engineering, Chrysler-Airtemp, Dayton, Ohio.
 - The Heat Pump is compared with other methods of heating; marketing, application and climatic problems are evaluated as design parameters. This is followed by a discussion of control systems and control components for the Heat Pump.
- Compressor Time Delay Starting Circuit, H. H. Rhea, Manager, Unitary Air Conditioner Development Department, Carrier Air Conditioning Company, Syracuse, N.Y.

Features of a time delay device to prevent compressor motor short cycling and provide automatic resetting of safety devices as well as additional advantages.

- Hermetic Compressor Motor Protection, S. F. Ciricillo, Director of Research, Ranco, Incorporated, Columbus, Ohio. A description of the development of built-in motor protectors for improved locked rotor and running overload protection of hermetic compressors.
- A Critique of Air Ionization and its Applications, F. P. Speicher, Project Scientist, Advanced Development Department, Philco Corporation, Philadelphia, Pa.

A discussion of the psychological and physiological effects of electrical charges in the air and a review of air ionization research, including heretofore unpublished findings.

A Study of Home Humidity Requirements, E. F. Thomson, Advanced Development Engineer, Whirlpool Corporation, Evansville, Indiana.

Calculations of the humidity needs of structures and their verification by actual measurements as the basis of design specifications for air conditioners,

Electronic Air Cleaning, J. Curry, Application Engineer, Minneapolis-Honeywell Regulator Co., Minneapolis. Minn.

A discussion of the problems of air cleaning in the home and their solution based on the use of electronic precipitation, including a description of an actual system and its components.

- 5:00 P.M. Adjournment
- 5:15 P.M. Informal Cocktail Hour Parlors 10, 11 and 12
- 8:30 P.M. Meeting of the Domestic Appliance Committee, AIEE Parlor 10

Wednesday, May 23, 1962

- 8:00 to 9:00 A.M. Registration Parlors 10, 11 and 12.
- 9:00 A.M. Session III—Hall of Mirrors

 PRESIDING CHAIRMAN: Truman H. Cline,
 Manager of Engineering, Stevens Manufacturing Company, Inc., Mansfield, Ohio.
- Quality Control and Reliability, J. L. Easterday, Project Leader, Battelle Memorial Institute, Columbus, Ohio. The concepts of Quality Control and Reliability are defined and related, and a way is proposed of organizing a reliability program in a corporation.
- Reliability Engineering, R. L. Nelson, Principal Engineer, Battelle Memorial Institute, Columbus, Ohio. The reliability aspects of devices are examined in light of their interest to the reliability engineer and the probabilistic definition of reliability is developed in this presentation.
- Thermoelectric Heat Pump Module Production, M. A. Fuller, Research Engineer, Whirlpool Corporation, St. Joseph, Michigan.

A description and salient data of an early attempt to produce thermoelectric heat pump modules by mass production methods.

- Thermoelectric Transients, J. B. Horvay, Systems Project Engineer, General Electric Co., Louisville, Kentucky. A report on a practical demonstration of the utilization of transient conditions to produce temporary cold junction temperatures with minimum equipment.
- Present Status of Solid State Devices in the Control of Appliances, R. T. Simmons, Senior Design Engineer, General Electric Co., Morrison, Illinois.

A review of currently available solid state devices as related to appliance control, their reliability, their cost, and examples of development work in this field.

12:00 to 1:15 P.M. - Luncheon - Parlors 10, 11 and 12.

INSPECTION TRIPS

1:15 P.M. - Departure for Inspection Trips

INSPECTION TRIP No. 1 — Wednesday, May 23, 1962; 1:15 P.M.

Westinghouse Electric Corporation, Phillipi Road, Columbus, Ohio.

A major manufacturing plant producing refrigerators and other major appliances in mass quantities. INSPECTION TRIP No. 2—Wednesday, May 23, 1962, 1:15 P.M.

Ranco Incorporated, Plain City, Ohio.

A leading manufacturer of automatic control devices for the appliance industry; thermostats, timers, valves.

INSPECTION TRIP No. 3—Wednesday, May 23, 1962, 1:15 P.M.

The Ebco Manufacturing Company, Hamilton Road, Columbus, Ohio.

A tour through the ultra-modern plant of a leading manufacturer of water-coolers and dehumidifiers.

Conclusion of Conference

Conference Organization

Sponsoring

A.I.E.E. Domestic Appliance Committee

—Warren F. Kindt, Chairman
General Electric Company, Appliance Park,
AP-2, Louisville 1, Kentucky.

Columbus Section, A.I.E.E.

—Patrick N. Curtis, Chairman
Westinghouse Electric Corporation
Columbus, Ohio

A.I.E.E. Headquarters

—R. S. Gardner, Secretary, Special Technical
Conferences,

345 East 47th Street,
New York 17, New York

Operating

Conference Chairman	John Liebermann, Ranco Incorporated	
Vice Chairman	G. R. Tamplin, Battelle Memorial Institute	
Finance	J. H. Kaltenecker, R. G. Stafford Ohio Bell Telephone Co.	
Registration	L. A. Rea, Ohio Bell Telephone Co.	
	D. E. Thomson, R. G. McQueen, Westinghouse Electric Corp.	
Meeting Facilities	R. P. Palomo, Ohio Bell Telephone Co. S. P. Tomesek, Southern Ohio Electric Co.	
	n Trips	