NEWSLETTER

IRE Professional Group on ULTRASONICS ENGINEERING

THE PROFESSIONAL GROUP ON ULTRASONICS ENGINEERING (PGUE) IS AN ASSOCIATION OF IRE MEMBERS WITH PROFESSIONAL INTEREST IN THE FIELD OF ULTRASONICS ENGINEERING. ALL IRE MEMBERS ARE ELIGIBLE FOR MEMBERSHIP AND WILL RECEIVE ALL PGUE PUBLICATIONS UPON PAYMENT OF THE PRESCRIBED ASSESSMENT.

No. 11 March 1958

IRE NATIONAL CONVENTION

NEW YORK CITY

MARCH 24-27, 1958

At the IRE National Convention this year there will be three sessions which should be of special interest to PGUE members. Two of these were planned around problems currently facing groups within our membership. One of the sessions is devoted to the measurement of the properties of ultrasonic delay lines, a subject under consideration by an Electronic Industries Association standards committee. A second session is concerned with the measurement of radiated acoustic power, a problem presently being studied by an American Standards Association committee on Ultrasonic Cleaning. We are fortunate in having representatives of this committee among the panel members for this session. It is hoped that our sessions will provide forums for discussion of these problems. Additional papers on ultrasonic delay lines describing new developments in this field are included in the joint session with the Professional Group on Circuit Theory.

The program is as follows:

Session 29 - Circuit Theory I and Ultrasonics I - Modern Aspects of Delay Lines

Wednesday, March 26, 1958, 10:00 A.M. - 12:30 P.M. Sert Room Waldorf-Astoria

Chairman: H. A. Wheeler, Wheeler Laboratories, Inc., Great Neck Long Island, New York

*29.1 "Low-Dispersion Wired Delay Lines", M. J. DiToro, Polytechnic Research & Development Co., Inc. Brooklyn 1, New York.

29.2 "Electrical Design of the Transducer Networks of a Magnetostrictive Delay Line", L. Rosenberg and A. Rothbart, Federal Telecommunication Laboratories, Nutley, New Jersey.

*29.3 "The Approximation Problem in Lumped Delay Lines", A. Papoulis, Polytechnic Institute of Brooklyn, Brooklyn, New York

29.4 "Coiled Wire Torsional Wave Delay Line", R. N. Thurston and L. M. Tornillo, Bell Telephone Laboratories, Murray Hill, New Jersey

29.5 "Variable Delay Lines Using Ultrasonic Surface Waves", J. D. Ross, S. J. Kapuscienski, K. B. Daniels, Savannah River Laboratory, E. I. duPont deNemours & Company, Aiken, South Carolina

Session 43 - Ultrasonics II - Delay Line Measurements

Thursday, March 27, 10:00 A.M. - 12:30 P.M., Jade Room - Waldorf Astoria

Chairman: C. M. Harris, Electronics Research Laboratories, Columbia University, New York 27, New York

43.1 "Measurements of Delay in Ultrasonic Systems," D. L. Arenberg, Arenberg Ultrasonic Laboratory, Inc., Jamaica Plain 30, Massachusetts

43.2 "Precise Measurement of Time Delay", J. E. May, Jr., Bell Telephone Laboratories, Inc., Whippany, N. J.

43.3 "The Measurement of Delay-Line Transducer Resistance", J. J. G. McCue, Lincoln Laboratory, Massachusetts Institute of Technology, Lexington 73, Massachusetts and J. A. Leavitt, Harvard University, Cambridge, Mass.

43.4 "Ultrasonic-Delay-Line Terminating Circuits and Pass-band Measurements", M. Axelbank, Lincoln Laboratory, Massachusetts Institute of Technology, Lexington 73, Massachusetts.

43.5 "Measurement of Temperature and Frequency Dependence of Insertion Loss in Delay Lines", A. H. Meitzler, Bell Telephone Laboratories, Inc., Whippany, N. J.

* Papers contributed by PGCT

43.6 "The Measurement of the Total Spurious Responses of an Ultrasonic Delay Line", M. S. Zimmerman, General Atronics Corp., 1 Bala Avenue, Bala Cynwyd, Pennsylvania

Session 51 - Ultrasonics III - Measurement of Radiated Acoustic Power

Thursday, March 27, 2:30 - 5:00 P.M., Jade Room, Waldorf Astoria

Chairman: O. E. Mattiat, Aerophysics Development Corp., Santa Barbara, California

51.1 "Power Handling Capability of Ferroelectric Ceramics", G. W. Renner, R. A. Plante and T. F. Hueter, Raytheon Manufacturing Company, Wayland Laboratory, Wayland, Mass.

51.2 "Measurement of Acoustic Power Radiated from Underwater Sound Transducers", R. J. Bobber, Office of Naval Research, U. S. Navy Underwater Sound Reference Laboratory, Orlando, Florida

51.3 "An Instrument for Determining Intensity of Ultrasound", J. F. Herrick, B. H. Anderson and M. Neher, Mayo Clinic and Mayo Foundation, Rochester, Minnesota

51.4 "Measurements of Acoustic Power in Industrial Ultrasonic Equipment", W. Welkowtiz, Gulton Industries, Inc., Metuchen, New Jersey

51.5 "Panel Discussion - Problems in Power Measurement", Panel Members: G. E. Henry, General Electric Eng. Lab., General Electric Co., Schenectady, New York; S. E. Jacke, Detrex Corp., Detroit, Michigan; Frank Massa, Massa Labs., Inc., Hingham, Mass.; Murray Strasberg, David Taylor Model Basin, Washington, D. C.