



# 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. 7

January 11, 1957

At the last meeting of the PGUE Administrative Committee, a letter from a prominent member of our Group was read which suggested the quality of professional papers should be stressed at PGUE Sessions. Considerable attention has been given also to the suggestions for technical sessions made by our members when answering the Questionnaire dated 13 July 1956. The Administrative Committee appreciates greatly all suggestions and constructive criticisms which will strengthen and unify the IRE Professional Group on Ultrasonics Engineering. We want to serve each and every one of our members in the best way possible.

Two sessions on ultrasonics are scheduled for the 1957 IRE National Convention. An educational session will take place on Monday afternoon and a technical session consisting of submitted papers will be held on Tuesday morning. Your Session Organizer knows that many of you would prefer to have both sessions scheduled for the same day. Many other professional groups want to do the same thing, so it was not possible this year to arrange for both sessions to take place on a given day. It is hoped that the consecutive arrangement (one on Monday afternoon and the other on Tuesday morning) will not be too inconvenient for you.

The educational session on Monday afternoon gives us an opportunity to listen to outstanding authorities in the field of ultrasonics. This session has been organized with the cooperation of the Acoustical Society of America. Each speaker accepted the invitation willingly. Let us respond as generously in our attendance at this session. You will be happy to know that our illustrious member, Walter G. Cady, will be the Chairman of the Educational Session.

The session of submitted papers is particularly interesting because it emphasizes the wide range of activities in this rapidly growing field of science. The Chairman of this session will be Professor J. Warren Horton, Sc. D., of the U. S. Navy Underwater Sound Laboratory at New London, Connecticut. We are fortunate indeed to have Professor Horton's acceptance of the invitation to act as Chairman of the session, because he is intensely interested in ultrasonics and is an expert in the fields of application described in some of the papers to be presented.

Both sessions on Ultrasonics will be held in the Sert Room of the Waldorf-Astoria Hotel. The program for the educational session is:

The Training of an Ultrasonic Engineer

by F. V. Hunt, Rumford Professor of Physics, and Gordon McKay,  
Professor of Applied Physics, Harvard University

Ultrasonic Analysis

by T. F. Hueter, Acoustics Laboratory, Massachusetts Institute  
of Technology

Some Fundamentals of Transducer Design for the Sonic and Ultrasonic  
Range

by Frank Massa, Massa Laboratories

The Ethics, Standards and Objectives of the Recently Formed  
Ultrasonics Manufacturers Association

by S. R. Rich, Vice President, Ultrasonics Manufacturers Association

The educational session is an outgrowth of action taken at the October meeting of the Administrative Committee when unanimous approval was expressed for cooperating with the Acoustical Society of America at meetings sponsored by either IRE or the ASA. Those of you who are members of both groups will be especially appreciative of the benefits that we will gain by cooperating with the ASA which has many similar interests.

The technical session on Ultrasonics Engineering on Tuesday morning includes papers on:

Sea Clutter in Radar and Sonar

by R. M. Hoover and R. J. Urick

Transducer Comparison Methods Based on the Electromechanical  
Coupling Coefficient Concept

by Ralph S. Woollett

Polarization of Barium Titanate Ceramic

by John G. Froemel

Ultrasonic Liquid Level Sensor

by Robert L. Rod

Precision Calibration of Ultrasonic Fields by Thermoelectric Probes

by W. J. Fry and Floyd Dunn

New Magnetostriction Filters for the MF Band

by R. T. Adams

Naturally, all of you will receive announcements of the complete IRE sessions later, but we thought that you would be especially interested in getting an idea of how interesting and varied our next PGUE sessions will be.

Incidentally, if you like or disapprove this advance notice in newsletter form, or if you have suggestions for the kind of material which should be in a newsletter, please let our Chairman or your Secretary know. Julia Herrick can be reached at the Mayo Clinic, Rochester, Minnesota, and your Secretary's address is Honeywell Research Center, Hopkins, Minnesota.

Finn J. Larsen  
Secretary