

Editor's Overview

THE BEAUTIFUL PICTURE on the cover will remind many of us of the setting for the 1981 International Microwave Symposium. Following on the next several pages are a few other bits and pieces of nontechnical information which should jog the memory as well. This Symposium Issue is devoted to recording these events, acknowledging the volunteers, and providing an opportunity for expanded presentation of appropriate Symposium papers.

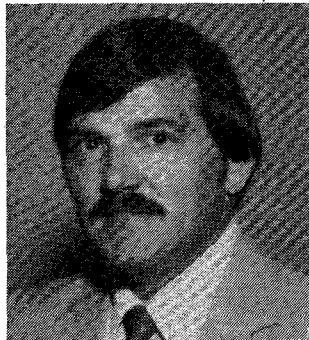
The theme of the Symposium, "Around the World with Microwaves", relates to the international nature of the profession and was supported by the many non-U.S.A. papers. Did you notice that the Smith chart overlay on the theme "World" was centered on Los Angeles? This was an appropriate symbol for the Symposium.

The papers in this issue demonstrate the diverse areas related to microwaves. The subject areas of semiconductor

devices, medical applications, circuit design, propagation, field theory, power, surface acoustic waves, ferrites, and measurements are all dealt with.

There was a day when "Microwaves" was a specialty unto itself, whereas now it has become just another general category. As a result, reliance on the technical reviewers was substantial. I want to thank all of the reviewers for their time and constructive comments as they have increased the overall quality of this Symposium Issue. I would like also to thank the authors for their contributions and cooperation in working to a tight schedule. Credit for the cover picture goes to Susan Cisco, wife of MTT member Terry Cisco.

ROBERT L. EISENHART
Guest Editor



Robert L. Eisenhart (M'70) was born in San Antonio, TX, on December 5, 1938. He received the B.E.E. degree from Rensselaer Polytechnic Institute, Troy, NY, in 1960, and the M.S.E. and Ph.D. degrees in electrical engineering from the University of Michigan, Ann Arbor, in 1966 and 1970, respectively.

He spent two years in the military as a Project Officer with the Research and Development Division, U.S. Army Security Agency Headquarters, Arlington, VA. During this tour he monitored and participated in all phases of the development of electronics equipment (ECM, ELINT, etc.) from specifications through field testing. Upon discharge from the service in 1962, he remained with the Army Security Agency in a civilian capacity to become a Staff Engineer with their European Headquarters, Frankfurt, West Germany. As a civilian he was involved in planning, programming, coordination, installation, and maintenance of classified electronics systems. He returned to school in 1965, and until 1970 was engaged in the theoretical and experimental analysis and design of microwave circuitry, related particularly to parametric components. This led into waveguide equivalent circuit modeling which was the basis for his thesis work. Upon completion of the doctoral program at the University of Michigan, he went to work for Hughes Aircraft Company, Culver City, CA, in the Radar Systems Group, where his principal work was with TRAPATT and IMPATT amplifier circuits. The requirements for higher power took him into power combining investigations which led in 1977 to a transfer to head up the Solid State Transmitter Section, Microwave Department of Hughes Missile Systems Group. He is still with that department, now as a Senior Scientist, continuing the advancement of power combining techniques. He has taught a microwave theory course at Loyola University of Los Angeles, CA, and has been a Guest Lecturer at University of California, Los Angeles and at the University of Michigan, Ann Arbor. He has directed the research on four Masters theses at UCLA. He also has 14 papers in the field of microwave circuits, one patent, and four pending.

Dr. Eisenhart is a member of IEEE Microwave Theory and Techniques Society, Electron Devices Society, the honoraries Sigma Xi, Tau Beta Pi, and Eta Kappa Nu, and is listed in *Who's Who in the West* and *Who's Who in Technology Today*.