

Editor's Overview

BOSTON IS A CITY that is rich in tradition. One modern tradition of Boston is to set new plateaus for the MTT-S International Microwave Symposium. The 1983 Symposium broke all previous conference attendance records with a total attendance of 5168. The "Open Forum" session for technical papers was a resounding success. A new hardcover Symposium Digest was introduced. The technical quality of the Symposium is reflected in the articles that have been expanded for publication in this Special Issue of the TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES.

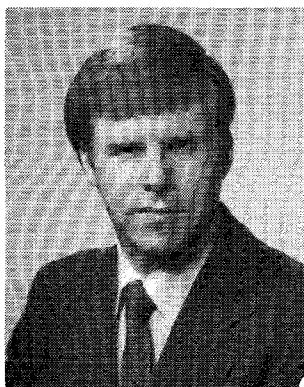
The 1983 IEEE Microwave and Millimeter-Wave Monolithic Circuits Symposium was held jointly with the MTT-S International Symposium. In the past, the expanded versions of the technical papers of the Monolithic Circuits Symposium have appeared in the January issue of this TRANSACTIONS. But in keeping with the joint nature of these two meetings this special issue contains the papers from both Symposia. A special word of appreciation is extended to Walt Gelnovatch and his able staff and reviewers for accelerating their deadlines to meet the deadline for this issue.

The papers in this issue exemplify the diverse technical presentations in both Symposia. The articles are both rich in theory and experimental results. Since only a small

number of papers can be published in their expanded form, even in this combined Special Issue, I would recommend that you obtain a copy of each Symposium Digest. The table of contents for the International Microwave Symposium is published in this issue, as well as the titles of the papers in the Monolithic Circuits Symposium.

My sincere appreciation and gratitude is extended to the authors for their efforts in producing the articles appearing in this issue. The reviewers provided excellent critiques and suggestions for revisions and are gratefully acknowledged. The authors, Session chairmen, Steering Committee, and Technical Program Committee of the Monolithic Circuits Symposium are commended for excellent technical programs and contributions to this issue. But beyond the preparation of this issue, a special thanks is given to the International Microwave Symposium Steering Committee and its Chairman, Harlan Howe, to the Technical Program Committee and its Chairman, Ralph Levy, to the Session chairmen, organizers, and the co-editor of the Microwave Symposium Digest, Frank O'Hara, for many tireless and dedicated hours in achieving a successful new plateau for the 1983 Symposium.

GLENN R. THOREN
Guest Editor



Glenn R. Thoren (M'73) received the B.S. degree in applied and engineering physics from Cornell University, Ithaca, NY, in 1972, and the M.S. degree in applied and engineering physics from Cornell University, in 1973. He has also received the Ph.D. degree in electrical engineering from Cornell University in 1980 while sponsored by a Raytheon Company Fellowship.

He has been with Raytheon since 1971 and with the Missile Microwave and Antenna Department of the Missile Guidance Laboratory and the Antenna/Microwave Department of the Radar Systems Laboratory since 1973. He has directed millimeter-wave technology and development programs as Manager of the Millimeter Wave Transmitters and Systems Section of the Antenna/Microwave Department, and is currently directing the development of solid-state transmitters and other millimeter-wave systems as Manager of the Power Generation Design Section of the Millimeter Wave Systems Department. He has designed, developed, and supervised research on many state-of-the-art IMPATT diode

power combiners for active seeker missiles and projectiles from X-band through W-band. He completed development work on surface acoustic-wave delay lines for the PATRIOT air defense system in 1973-1974. He has characterized and

analyzed both silicon and GaAs IMPATT's up to 100 GHz. He discovered the delayed secondary avalanche (DSA) phenomena in millimeter-wave IMPATT's during his Ph.D. studies at Cornell.

Dr. Thoren has been actively involved in IEEE activities for many years. He is a past Chairman (1982-1983) and Vice Chairman (1981-1982) of the New England Council Chapter of the Microwave Theory and Techniques Society. He has served as Membership Development Subcommittee Chairman for the International MTT-S ADCOM (1974-1980). He is also continuing to serve as Membership Development Chairman for Division IV (1981-). He was Co-Chairman of the 1983 MTT-S Symposium Publications Committee that produces the Symposium Digest, and a member of both the Technical Program Committee and the Symposium Steering Committee. He is a member of the Technical Program Committee for Electro '84 and is currently serving as a member of the Executive Committee of the Boston Section. He is also a member of the MTT and ED Societies, as well as the Eta Kappa Nu Honor Society. For Raytheon, he is currently the Chairman of the Raytheon-Cornell University College Relations Committee and the Technology Leader for Millimeter Wave Development at Bedford Laboratories. He was named Engineer of the Month in October 1982 for the development of a versatile *W*-band IMPATT power combiner.

Dr. Thoren holds four patents for advanced solid-state power combiners circuits and has published and presented more than twenty-five papers on solid-state power sources and millimeter-wave technology.