

# Foreword

THE 1985 IEEE MICROWAVE and Millimeter-Wave Monolithics Symposium was held on June 3 and 4, 1985 in St. Louis, MO, in conjunction with the IEEE MTT-S International Microwave Symposium. A total of 686 attended. This the fourth Microwave and Millimeter Wave Monolithic Circuits Symposium continued to enjoy a high level of interest from the technical community. This was reflected in the quality of submissions to the Technical Program Committee and the high attendance for all the Symposium sessions. The Technical Program Committee worked diligently to carefully review the papers submitted and provided a quality program.

This Special Issue provides authors of papers presented at the Symposium an opportunity to expand and publish a more detailed description of their work than possible in the Symposium Digest. The authors who take advantage of this opportunity to submit their work for review and inclusion in this Special Issue are appreciated. The Special Issue format allows the dissemination of their technical work substantially beyond the number that can attend any Symposium.

This year's technical program had twenty-two papers divided into four sessions held both morning and afternoons on Monday, June 3 and Tuesday, June 4, at the Cervantes Convention Center. The sessions on Tuesday, June 4 were held jointly with the 1985 IEEE MTT-S International Microwave Symposium.

The technical program opened with a session on switching and control circuits which included, in addition to papers on amplitude and phase control circuits, papers on a periodic Schottky slow-wave structure for multipliers, an A/D converter, and a four-channel digital time switch. The microwave amplifier session on Monday afternoon was principally devoted to monolithic power amplifiers and two papers described critical process parameters and production technology.



**Roger W. Sudbury** (M'79) was born in Blytheville, AR, on April 22, 1938. He received the B.E.E. (with highest honor) degree from the Georgia Institute of Technology, Atlanta, in 1960 and the S.M. and E.E. degrees from Massachusetts Institute of Technology, Cambridge, in 1963 and 1964, respectively.

From 1964 to 1966, he served in the U.S. Army OH-6A helicopter project office and was responsible for development of a lightweight avionics package. Prior to joining the MIT Lincoln Laboratory, Lexington, MA, in 1969, he was with Ion Physics Corporation working on ion implantation, sputtering, and solar-cell research. He is currently Associate Group Leader of the Field Systems Group at Lincoln Laboratory working on the development of solid-state components for phased-array radar applications. He has been actively involved in the development of monolithic GaAs for millimeter-wave applications for many years.

Mr. Sudbury is a member of Tau Beta Pi, Eta Kappa Nu, Sigma Xi, Phi Eta Sigma, and Phi Kappa Phi.

On Tuesday following the opening of the 1985 MTT-S International Microwave Symposium, the first joint session covered monolithic receiver circuits using FET's in amplifiers and mixer circuits. The closing session on Tuesday afternoon was on the topic of millimeter-wave circuits where, although three-terminal devices are becoming available, the papers reflected the continuing use of two-terminal devices for the higher frequencies.

Time was provided for discussion of each paper, which contributed to a feeling that there was a strong sense of involvement by those attending the Symposium. The growth and future of this technology can be found in the papers presented and the interest of those in attendance. The promise and potential of monolithic circuits for microwave and millimeter-wave circuits will be realized through their efforts.

Dr. William Wisseman served as general Chairman of the Symposium Steering Committee and deserves thanks for organizing and running a very successful Symposium. He had the support of a competent and hard working Steering Committee. The cooperation of the 1985 IEEE MTT-S International Microwave Symposium under the chairmanship of Fred J. Rosenbaum is greatly appreciated, especially the support of William E. Hord and Stephen Honickman, Co-Chairmen of their Technical Program Committee. I would like to thank the members of the Technical Program Committee of this 1985 Symposium for a job well done.

I want to thank V. G. Gelnovatch for an outstanding job of organizing this Special Issue and also the support R. Gilson provided. I wish to acknowledge the assistance provided to me in organizing the Technical program by L. Shukri and J. Courteissi.

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Technical Program Committee