

Editor's Overview

THE MOTTO OF the 1985 MTT-S International Symposium was *Microwaves: Gateway to the Future*, and it was held in St. Louis, within sight of the Gateway Arch, symbol of an earlier successful drive to the future. In this Symposium Issue of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, we are publishing expanded and detailed versions of a small but representative fraction of the more than one hundred and fifty technical papers that were presented during the three days of the Symposium.

A glance at the table of contents yields convincing evidence of the diversity of interests and capabilities of the microwave community. Much work has been devoted to the modeling, analysis, and design of both passive and active components and circuits; there are reports on the performance of devices, systems, and applications ranging from FET's and resonators to satellite communications, superconducting circuits, and internal combustion engine monitors (!).

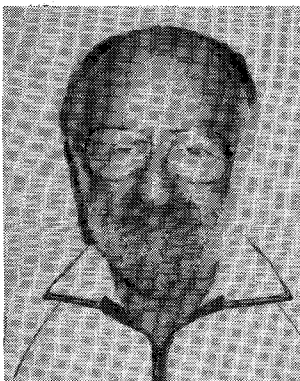
A new feature of this issue is a report on a panel session on millimeter-wave subsystems, organized by T. H. Oxley and J. B. Horton. We are all indebted to John Horton for

soliciting and assembling a group of papers from this panel, and for writing a summary of the proceedings that conveys the spirit of the lively discussion.

I am grateful to the reviewers of the papers published here, who made many constructive suggestions (acknowledged as such even by the authors) for improving manuscripts, and to the authors who all were most cooperative with editorial requests (not the least of which was a group of frantic telephone calls asking for replacements when twelve manuscripts vanished, for twenty-three days, into the darkest recesses of the postal system).

A selection of papers from the Microwave and Millimeter Wave Monolithic Circuits Symposium, which was held concurrently with MTT-S, has been assembled for publication in this issue of the TRANSACTIONS, and they are introduced in separate preamble by Roger Sudbury.

MARCEL W. MULLER
Guest Editor



Marcel W. Muller (SM'57-F'80) holds the B.S.E.E. degree from Columbia University and the Ph.D. degree in physics from Stanford University.

He was employed in the research laboratories of Varian Associates from 1952 to 1966 and has been Professor of Electrical Engineering at Washington University since 1966. He spent a sabbatical year 1976-1977 at the Max Planck Institute for Metallurgical Research, Stuttgart, as a Visiting Scientist. Professor Muller's research interests have covered a wide range of subjects including microwave and quantum electronics, semiconductor and device physics, and magnetic materials and their applications. He is a Fellow of the American Physical Society, a member of the Optical Society of America, AAUP, and the Union of Concerned Scientists. He has served as Chairman of the Device Research Conference and as Reviews Editor of the IEEE TRANSACTIONS ON MAGNETICS. In 1976, he was awarded the Alexander von Humboldt Prize of the Federal Republic of Germany "in recognition of his scientific contributions in research and teaching."