

Editor's Preface

THIS INDEX ISSUE has been a long time in arriving. Over the last decade it has been requested by many of our members. A plan to publish it has been brought before the MTT Administrative Committee three times during my eight years of association. It failed to get Administrative Committee approval two of these three times because we simply could not afford it—five years ago our net worth was \$18000 and expected to go lower.

Since then the trend has reversed. We can now afford it. We have had especially good attendance at our symposia and realized excellent surpluses. Furthermore, IEEE has raised the subscription rates to libraries and other non-member subscribers to better cover the publishing cost and thereby allow our surplus funds to be available for services such as this index. It is an extra issue of this TRANSACTIONS, one of thirteen issues planned for 1980. Its value to the membership and the libraries is expected to far exceed its cost to us through future savings in time and manpower expended in literature searches.

A special feature of this issue is the "History of the MTT TRANSACTIONS" appearing in the next few pages. It is appropriate that this summary, relating our publication to the technology and the events that have brought us to our present position in the evolution of microwave technology, appear with this index. The history was compiled and edited by Ted Saad, a founding and still very active member, with contributions from all of the MTT TRANSACTIONS editors since its inception in 1953.

It is also appropriate here to recognize the role of these editors, who are largely responsible for the stature that the MTT TRANSACTIONS has achieved in the microwave profession. This TRANSACTIONS is the most respected and most widely referenced microwave periodical. Much of the credit for this goes to the editors and is the result of their professional approach, high standards, and hard work. You can find their names and their period of service in the history that follows. Backing up these Editors were those members of the Administrative Committee who recognized the importance of maintaining a respected journal and who were unwilling, when expenses kept rising, to accept reduced quality, to use less expensive but less appealing publication processes, or to use less durable paper.

It should also be mentioned that this TRANSACTIONS

has not been without criticism. The one major criticism has been the cry to publish more application papers, which leave the majority of the readers with something they can apply to their work—papers that 1) clearly express the problem, 2) explain the solution, 3) provide useful design equations and graphs that relate dimensions to electrical performance, and 4) prove the thesis by experimental evidence. These are the four basic requirements of an application paper. Together they have the collective effect of teaching the reader how to use the material in the paper. This contrasts with papers often appearing in some microwave trade magazines that seem to be application papers, but instead of teaching how to use, only show how a device performs.

The cry for more application papers has been strongly voiced in every membership survey and every editorial committee evaluation during the past decade. The comment applies to most of the IEEE publications. It was most recently and eloquently stated by Marion Hines in his evaluation of the MTT TRANSACTIONS as part of an IEEE Review Committee.

The undersigned is currently charged with making the TRANSACTIONS responsive to this criticism. It is a difficult task that requires cooperation between three different segments of our profession—the author of the paper, the TRANSACTIONS reviewer and editor, and the employer of the author. The authors must write their papers to clearly address the problem and solution, and provide useful design data and supporting experimental evidence. The editor and reviewers must actively solicit application papers, ascertain that the four basic requirements are met, and assist and guide writers in rewriting their papers to address these requirements. Lastly, the employers must allow their authors to include meaningful design data in their papers—in essence, to give to the public data paid for by their support of the author—data which may assist their competition. The last point is especially difficult to obtain in these days of diminished government R&D support and consequent increased competition.

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Guest Editor