

## Editors' Overview

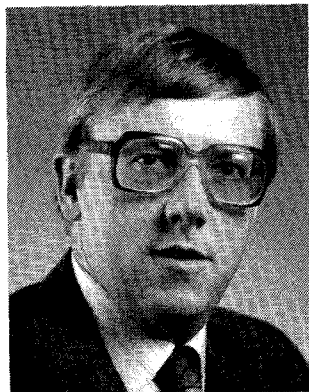
**T**HE RECORD number of papers presented at the Symposium (297) resulted in a record 97 expanded manuscripts submitted for possible publication in this Special Issue. The review coordination required for such a large number of papers represented an extraordinary effort, which was accomplished with the enthusiastic support of the IEEE members who served as reviewers. While a significant number of papers qualified for publication, a severe page limitation imposed on this issue, which saw the page budget reduced to 240 pages (down from 300 last year), restricted the number of papers that could be accepted. This fact, coupled with the record number of papers received, made the selection process difficult and as a result only about one third of the submitted papers were accepted. Consequently, many technically sound papers had to be excluded because they were only marginally expanded in substance from the *Symposium Digest* version. All prospective authors were advised of these "ground rules" (i.e., the need to expand substantially beyond the *Digest* transcript) at the time the invitation for the TRANSACTIONS version of their paper was extended to them. The degree of compliance with the ground rules varied significantly, with a substantial number of papers being identical or nearly identical to the *Digest* version. These papers were denied publication for the reasons stated above. Following review, several papers were recommended for further expansion, clarification, or reduction in scope and

subsequent resubmittal to the regular Editor for consideration for later publication, as neither time nor page allowance would permit publication in this issue.

The international flavor of the Symposium is reflected by the inclusion of 17 papers from ten countries, and by the very wide range of microwave theory, techniques and applications related papers of international interest included in this issue. The papers from the Microwave and Millimeter-Wave Monolithic Circuits Symposium were edited separately by Vladimir Sokolov.

We express our appreciation to all of the reviewers for their time, their constructive comments and critiques, and their major contribution to this issue. (The reviewers are listed below.) We also wish to thank the authors for their timely and complete responses to the review comments. We also would like to thank the Technical Program Committee for their culling of the excellent group of papers for the Technical Program, from which 34 are published as expanded papers in this issue. Finally, we wish to thank our secretaries, Ms. Gloria White and Ms. Vivian Wells, for their enthusiasm and dedication in helping put this issue together.

FRANKLIN J. BAYUK  
JORG E. RAUE  
*Guest Editors*



**Franklin J. Bayuk** (S'70-M'72-SM'86) was born on February 21, 1945, in Greenwood, WI. He received the BSET-E degree in 1971 from the Milwaukee School of Engineering and the MSEE degree in 1975 from Loyola Marymount University in Los Angeles.

Since 1972 he has been involved in the design, development, and manufacture of a variety of microwave and millimeter-wave devices, components, and subsystems associated with communications and radar applications. He has established expertise from specialized active devices such as HEMT's, IMPATT's, and GaAs MIMIC's to components such as power combining amplifiers at EHF to subsystems such as complete transceiver assemblies. Mr. Bayuk's technical career spans 17 years with TRW Space and Defense, Redondo Beach, CA, where the opportunity to actively participate in spacecraft, smart munitions, and tactical communication systems has presented an environment to utilize his contributions in state-of-the-art configurations. He is currently managing several communication subsystem payload activities.



**Jorg E. Raue** (S'61-M'62-SM'76-F'86) received the B.S. degree in electrical engineering from the Milwaukee School of Engineering in 1961 and the M.S. and Ph.D. degrees from Marquette University in 1965 and 1968, respectively.

From 1961 to 1969 he was on the faculty of the Milwaukee School of Engineering, serving as Department Chairman in 1969. In 1969 he joined TRW, where he led numerous technology efforts that focused on the development of millimeter-wave active and passive circuits, components, and subsystems. As manager of the Millimeter Wave Technology Department, he was responsible for all internal millimeter-wave technology development and contractual programs from 1976 to 1979. In 1979 Dr. Raue joined the California Polytechnic State University, where he was head of the Electrical Engineering Department for one year, returning to TRW in 1980. During the next four years he led various space communication systems oriented technology development efforts in the area of tactical millimeter-wave communication subsystems, solid-state lasers, and millimeter-

wave ferrite materials. He also initiated TRW's involvement in millimeter-wave missile seekers. Since 1984 he has held increasingly responsible project management positions on efforts involving advanced space hardware development and production. Among others this included support of DSCS, Landsat, and DSP. He became deputy assistant project manager in 1986, assistant project manager for hardware development in 1987, and manager of a major project in 1988; currently he is responsible for the development and production of an advanced hardware system.

Dr. Raue is the author of more than 40 technical papers and has been awarded several patents. In 1986 he was named a Fellow of the IEEE for contributions in the development of millimeter-wave components. He has been active in IEEE activities for many years. He is a past Chairman of the Milwaukee joint ED/MTT Chapter and served as a director of the Milwaukee Section. He served as AdCom secretary in 1984 and has been a member of AdCom since 1985. He currently is chairman of the Educational Awards Committee and the Long Range Technical Planning Committee. Since 1986 he has served as a Program Evaluator for Electrical/Electronics and Computer Engineering for the IEEE Accreditation Board for Engineering and Technology (ABET). Dr. Raue is a member of the MTT TRANSACTIONS Review Board and was Editor of the 1981 *MTT-S Symposium Digest*. He has taught numerous graduate courses in field theory, microwave solid-state electronics, and microwave systems at several universities. He currently teaches a graduate course on microwave device-circuit interactions at USC. He is an instrument rated pilot.

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