

Guest Editors' Overview

THE 1991 International Microwave Symposium (IMS) and Microwave and Millimeter-Wave Monolithic Circuits Symposium (MMWMCS) in Boston attracted a record number of papers. Of the 699 submissions to the IMS and 61 submissions to the MMWMCS, 304 and 25, respectively, were accepted. From these, expanded versions of 74 IMS papers and seven MMWMCS papers were submitted for publication in this issue and, following the review process, 37 IMS and five MMWMCS papers were accepted. A significant number of papers was returned to the authors for revision and resubmission to Dr. Stephen A. Maas because the publication deadline of this issue did not allow for a second review cycle. Some of these papers will be published in future issues of the *TRANSACTIONS*.

In keeping with the theme of the IMS: the 50th anniversary of the establishment of the MIT Radiation Laboratory, the paper by Dr. Ivan A. Getting provides a historical overview of the evolution of microwave systems over these 50 years. The technical papers in this issue reflect the broad range of topics presented at the symposium, such as solid state devices and circuits, MMIC's, transmission lines, measurement techniques, and computer-aided design.

We want to express our thanks and appreciation to the reviewers (listed below) for their time and efforts. The high standards of the *TRANSACTIONS* are a direct result of their contributions. We also wish to thank the authors for their timely submissions and revisions, and to extend our thanks and congratulations to the IMS and the MMWMCS Technical Program Committees for first class Technical Programs.

The IMS Guest Editor takes this opportunity to thank his wife, Bobby, for mailing the large number of letters and papers, and Joe Nizko, the IMS Associate Guest Editor, for sharing the editorial workload and helping to make it an interesting and rewarding experience. Also, the support of George Heiter, Steve Maas, Dave McQuiddy, Frank O'Hara, Jorg Raue and John Wassel are gratefully acknowledged. Finally, special thanks go to Pat Palmer who assisted the MMWMCS Guest Editor with correspondence related to the review process.

ZVI GALANI
VLADIMIR SOKOLOV
Guest Editors

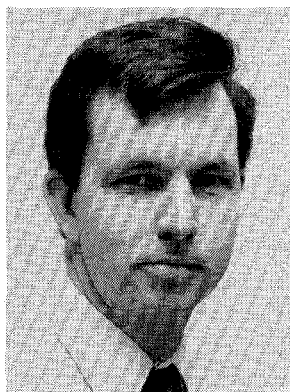


Zvi Galani (S'68-M'72-SM'82) received the B.S.E.E. degree from the Milwaukee School of Engineering in 1963 and the M.S. and Ph.D. degrees in electrical engineering from Cornell University in 1969 and 1972, respectively.

In 1963 he joined the General Electrical Company's Communication Products Department and was involved in the design of low-noise microwave sources for multichannel telecommunication systems. In 1972 he accepted the position of Senior Design Engineer with the Raytheon Missile Systems Division Bedford Laboratories. His work consisted in the design of microwave components and subsystems for the generation and amplification of microwave signals. From 1976 to 1982 he managed the Sources and Devices Section in the Missile Microwave and Antenna Department of the Missile Guidance Laboratory. In that position he provided technical direction and took an active part in the development and design of microwave signal sources and exciters for missile seekers. In 1982 he joined the Technical Staff of the Manager of Bedford

Laboratories. In that position his principal tasks have been the solution of critical production problems on major programs such as the Hawk, Patriot, Sparrow and AEGIS ER missile systems. In 1985 he was promoted to Consulting Engineer, the highest engineering level attainable at Raytheon. This designation is given in special recognition of continually outstanding achievement over a long period of time.

In January 1986 Dr. Galani joined the MTT-S Membership Services Committee as Chapter Records Chairman and served in that position until May 1990. From 1987 through 1989 he also served as the Special Articles Editor for the *MTT-S Newsletter*. In 1989 he was elected to MTT-S AdCom for the term 1990-1992 and served as AdCom Secretary in 1990. Presently he is the Chairman of the MTT-S Membership Services Committee. Dr. Galani is on the editorial board of the MTT-S *TRANSACTIONS*. He holds numerous patents and has authored papers on microwave sources, power FET amplifiers, and amplifier combiner circuits.

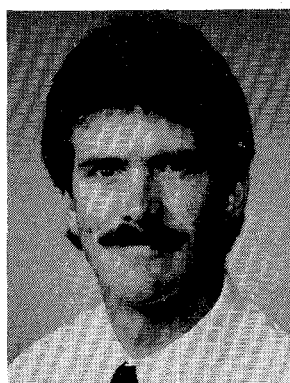


Vladimir Sokolov (M'75–SM'91) received the B.S. degree in science engineering from Northwestern University in 1968 and the M.S. and Ph.D. degrees in electrical engineering from the University of Wisconsin, Madison, in 1970 and 1973, respectively.

From 1974 to 1975, he was a Senior Engineer in the Electronics Division, Defense Systems Department, of Northrop Corporation, where he was engaged in the development of *X*- and *Ku*-band microstrip circuits for ECM applications. From 1975 to 1981, he was a Member of Technical Staff at the Central Research Laboratories of Texas Instruments, where his work included the development of microwave FET and IMPATT hybrid amplifiers through 20 GHz. At TI he contributed to the demonstration of one of the first *X*-band 1 watt monolithic amplifiers. He coauthored a chapter on FET circuit design in the book *GaAs FET Principles and Technology* (Artech House, 1982). He joined Honeywell's Corporate Technology Center in 1981. At Honeywell he helped establish a millimeter-wave packaging and testing facility and demonstrated several

Ka-band MMIC's for phased array applications. From 1986 to 1989 he was the Section Head of the GaAs Microwave and MM-Wave Electronics Section. In January 1990 he became Staff Scientist for the Microsystems and Circuits Science Area of Honeywell's Systems and Research Center, where his responsibilities include the application of MMIC and related technologies for Honeywell's space and aviation systems businesses.

Dr. Sokolov is on the Steering Committee of the Microwave and Millimeter-Wave Monolithic Circuits Symposium. He is Adjunct Professor at the University of Minnesota.



H. Joseph Nizko (S'82–M'83–M'90) received the B.S.E.E. degree from Florida Institute of Technology in 1983.

His professional career began at Texas Instruments, Inc., Dallas, TX, as a Reliability Engineer responsible for the design analysis of analog components for radar systems. In 1985 he joined Sperry Microwave Corporation, Clearwater, FL, where he designed and developed active and passive monolithic integrated circuits and was responsible for their integration into various microwave receivers. He is presently working for Raytheon Missile Systems Division in Tewksbury, MA as a Senior Engineer. His primary responsibilities include the design and development of monolithic microwave integrated circuits based on MESFET and VPIN technologies.

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