

Editorial

I AM WRITING this report at the end of my three-year tenure as Editor with a profound sense of satisfaction and relief; satisfaction that the TRANSACTIONS continues to serve its purpose as the premier publication in our field, and relief that I am able to hand over the task to such an extraordinarily well qualified individual as Dr. Rodney S. Tucker. Rodney has published over 100 papers encompassing a very broad range of microwave specialities, and will bring enthusiastic dedication to the Editorship with the full support of AT&T Bell Laboratories. He has been handling day-to-day editorial activities since July 1988 and takes over as Editor of the TRANSACTIONS with this issue.

My tenure has seen an unforeseen increase in the number of papers submitted for publication, with 340 papers being received in 1987 (exclusive of special issues, and the December issue). In spite of a rejection rate of at least 33 percent, this resulted in pressures on our page budget, forcing many papers to be delayed from 1988 until 1989, where fortunately our budget is much larger.

I have made few changes in policy during my tenure, but one or two items are I believe worthy of mention. Thus, the review form has been changed in order to stress the importance of *originality* for regular papers (as distinct from review articles). I must hasten to add that I have tried to be as lenient as possible with applications papers, which tend to be rare these days. I have added over 200 new names to the list of reviewers, which is now about 700 strong—such is the diversity of our field, demanding a large number of qualified reviewers. The original concept of a relatively small Editorial Board is no longer really

viable. Reviewers are listed from almost every country in the world, and I was pleased to be able to add to the list experts from China, India, and Taiwan. News of such developments is now given in regular contributions from the TRANSACTIONS Editor published in the MTT Newsletter.

There are many people who have assisted me during these three years, and I do not wish to name them for fear of excluding one or more. I must single out the Associate Editors, responsible for various special tasks, the excellent IEEE headquarters staff, who have kept each monthly issue arriving on time, the Editors of the Special Issues, and previous Editors (especially Tatsuo Itoh, MTT Publications Chairman) for their advice and support. None of this would be possible without the cooperation of our reviewers, whom I hope feel as I do that reviewing is a rewarding and educational experience rather than a chore, and one that all authors should be more than willing to undertake, especially in return for consideration given to their own submitted papers. I know from the many kind comments I have received from reviewers and authors alike that the vast majority do indeed share this belief, and we should all be grateful for this.

With the wealth of experience of this group of people and the depth of talent on Adcom and in the Society at large, I am sure that the TRANSACTIONS will continue to prosper.

RALPH LEVY
Editor (1986–1988)



Ralph Levy (SM'64–F'73) received the M.A. degree in physics from St. Catharine's College, Cambridge University, England, in 1953, and the Ph.D. degree in Electrical Engineering from the University of London, London, England, in 1966.

From 1953 to 1959, he was with GEC, Stanmore, Middlesex, England, where he worked on guided missile, radar, and countermeasures systems. In 1959, he joined Mullard Research Laboratories, Redhill, Surrey, England, and developed some now widely used techniques in ECM, such as instantaneous frequency measurement (digital IFM), and very broad band directional couplers. From 1964 to 1967 he was a member of the faculty at Leeds University, and carried out research in microwave network synthesis, including realizations of distributed elliptic function filters and exact synthesis techniques for branch guide and multiaperture directional couplers. From 1967 to 1984 he was with Microwave Development Laboratories, Natick, MA, as Vice President of Research, and developed practical techniques for designing very broad band mixed lumped and dis-

tributed circuits, and synthesis and field theory techniques to facilitate the design of a variety of microwave components.

From November 1984 until August 1988 he was Vice President of Engineering at KW Microwave, San Diego, CA, working mainly on lumped and distributed microwave filters. In August 1988 he joined Remec Inc., San Diego, CA, as Vice President of Research, concentrating on passive component development.



Incoming Editor



Rodney S. Tucker (S'72-M'75-SM'85) was born on March 14, 1948, in Melbourne, Australia. He received the B.E. degree and Ph.D. degree from the University of Melbourne in 1969 and 1975, respectively.

From 1973 to 1975 he was a Lecturer in Electrical Engineering at the University of Melbourne. His research was in the area of gain-bandwidth limitations and circuit synthesis techniques for broad-band and low-noise microwave transistor amplifiers. He was with the Department of Electrical Engineering and Computer Sciences, University of California, Berkeley, from 1975 to 1976, and from 1976 to 1977 he was with the School of Electrical Engineering, Cornell University. At Berkeley and Cornell, he developed methods for characterizing nonlinearities and distortion in microwave amplifiers. From 1977 to 1978 he was with Plessey Research (Caswell), Ltd., Allen Clark Research Center, England, where he worked on the packaging, characterization, nonlinear modeling, and analysis of high-power gallium arsenide field-effect transistors. He designed high-power

and high-efficiency microwave field-effect transistor amplifiers at X-band frequencies.

In 1978 he joined the Department of Electrical Engineering at the University of Queensland, Brisbane, Australia, where he was a Lecturer and later a Senior Lecturer. At the University of Queensland he worked on nonlinear microwave network analysis, microwave oscillators and mixers, automated large-signal microwave measurements, and high-speed optoelectronic devices. He developed new circuit modeling techniques for the analysis of microwave modulation in semiconductor lasers.

Since 1984 he has been with AT&T Bell Laboratories, Crawford Hill Laboratory, Holmdel, NJ, where his research is in high-speed semiconductor lasers, photodetectors, optical modulators, and optical amplifiers for digital and microwave analog lightwave systems. He is currently working on a number of applications of high-speed optoelectronic devices, including on-chip electro-optic sampling techniques for microwave integrated circuits, optical time-division multiplexing techniques for multigigabit per second systems, and millimeter-wave modulation of semiconductor lasers.

Dr. Tucker serves on the Lightwave Technology Committee of the Microwave Theory and Techniques Society. He was awarded a Harkness Fellowship by the Commonwealth Fund of New York, in 1975, and the Fisk Prize by the Institution of Radio and Electronics Engineers, Australia, in 1970.