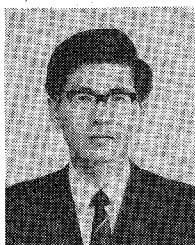


Contributors



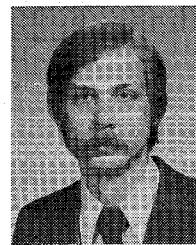
Kazuhiko Atsuki was born in Tokyo, Japan, on November 2, 1942. He received the B.S. and the M.S. degrees from the University of Electro-Communications, Tokyo, Japan, both in electrical engineering, in 1965 and 1967, respectively.

Since April 1967 he has been a Research Assistant with the Department of Applied Electronics, University of Electro-Communications. He has been studying switching transistors, strip transmission lines, and wide-band

laser modulators.

Mr. Atsuki is a member of the Institute of Electronics and Communications Engineers of Japan.

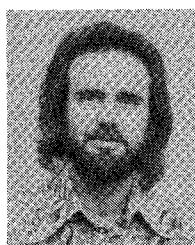
Dr. Gunshor is a member of the American Physical Society and Sigma Xi.



Richard A. Kiehl (M'75) was born in Akron, OH, on February 14, 1948. He received the B.S.E.E. and M.S.E.E. degrees in 1970, and the Ph.D. in 1974 from Purdue University, West Lafayette, IN.

In 1974 he joined Sandia Laboratories, Albuquerque, NM, as a member of the technical staff of the Solid State Electronics Division where he is currently engaged in research in the area of solid-state devices.

Dr. Kiehl is a member of Sigma Xi.



John W. Bandler (S'66-M'66-SM'74) was born in Jerusalem, Palestine, on November 9, 1941. He received the B.Sc. (Eng.) and Ph.D. degrees in electrical engineering from the Imperial College, University of London, London, England, in 1963 and 1967, respectively.

He joined Mullard Research Laboratories, Redhill, Surrey, England, in 1966. From 1967 to 1969 he was a Postdoctorate Fellow and Sessional Lecturer at the University of Manitoba, Winnipeg, Man., Canada. He became an Assistant Professor in 1969, Associate Professor in 1971, and Professor in 1974 in the Department of Electrical Engineering, McMaster University, Hamilton, Ont., Canada. He is Coordinator of the Research Group on Simulation, Optimization, and Control. He is a contributor to *Modern Filter Theory and Design* (G. C. Temes and S. K. Mitra, Ed.), Wiley-Interscience, 1973. He is author or coauthor of over one hundred papers, four of which appear in *Computer-Aided Filter Design* (G. Szentirmai, Ed.), IEEE Press, 1973, and one in *Microwave Integrated Circuits* (J. Frey, Ed.), Artech House, 1975. He was an Associate Editor of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES (1969-1974). He was Guest Editor of the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, Special Issue on Computer-Oriented Microwave Practices, March 1974.

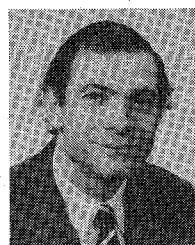
Dr. Bandler is a member of the Institution of Electrical Engineers, Great Britain, and is a member of the Association of Professional Engineers of the Province of Ontario, Canada.



Ralph Levy (SM'64-F'73) was born in London, England, on April 12, 1932. He received the M.A. degree in physics from St. Catharine's College, Cambridge University, Cambridge, 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 a member of the Scientific Staff at the Applied Electronics Laboratories of the General Electric Company, Stanmore, Middlesex, England, where he worked on guided missile, radar, and electronic countermeasures (ECM) systems, and microwave components. In 1959 he joined Mullard Research Laboratories, Redhill, Surrey, where he was engaged in broad-band receiver design, ECM, microwave components, and network synthesis. In 1964 he was a faculty member at the Department of Electrical and Electronic Engineering at the University of Leeds, where he carried out research in the fields of microwave network synthesis and broad-band microwave components, and held positions as an Industrial Consultant. Since July 1967 he has been with Microwave Development Laboratories, Natick, MA, and has the position of Vice-President for Research. He has developed several new microwave devices, particular filters and couplers, and introduced new types of computer-aided design techniques.

Dr. Levy is a member of the Institution of Electrical Engineers (London).



Robert L. Gunshor (S'57-M'60-SM'73) was born in New York, NY, in 1935. He received the B.E.E. degree from New York University, New York, NY, in 1958, the M.S.E. degree in 1962 from Union College, Schenectady, NY, in a graduate program with the General Electric Power Tube Department, Schenectady, NY, and the Ph.D. from Rensselaer Polytechnic Institute, Troy, NY, in 1965.

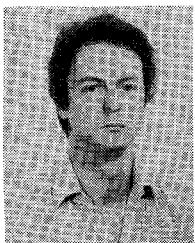
He has industrial experience with the General Electric Company and Microwave Associates,

and has taught at Union College, Rensselaer Polytechnic Institute, and Cornell University. He is currently Professor of Electrical Engineering at Purdue University, West Lafayette, IN. His research interests have included microwave tubes, plasma waves, microwave solid-state devices, and surface acoustic waves.



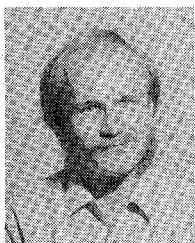
Mohamed R. M. Rizk (S'75) was born in Alexandria, Egypt, on September 17, 1949. He received the B.Sc. degree from Alexandria University, Alexandria, Egypt, and the M.Eng. degree from McMaster University, Hamilton, Ont., Canada, both in electrical engineering, in 1971 and 1975, respectively.

From 1971 to 1973 he was a Teaching Assistant at Alexandria University. Currently, he is studying towards the Ph.D. degree at McMaster University, specializing in computer-aided design.



Roberto Sorrentino was born in Rome, Italy, on December 27, 1947. He graduated in electrical engineering from the University of Rome, Rome, Italy, in 1971. Upon completion of his studies, he joined the Institute of Electronics, University of Rome, where he has been Assistant Professor since 1974. His research activities have been concerned with electromagnetic wave propagation in anisotropic media and numerical methods in electromagnetics. He is currently engaged in research on interaction between electromagnetic waves and biological tissues.

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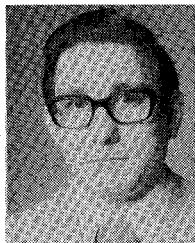


Herman Tromp was born in Antwerp, Belgium, on September 15, 1949. He received the electrical engineering degree and the communications engineering degree from the University of Ghent, Ghent, Belgium, in 1972 and 1973, respectively. In 1972 he became a Research and Teaching Assistant in the Laboratory of Electromagnetism and Acoustics, University of Ghent, Ghent, Belgium. He spent the academic year 1974-1975 on leave with the Group on Simulation, Optimization, and Control and Department of Electrical Engineering, McMaster University, Hamilton, Ont., Canada, as a Rotary Foundation Fellow. He worked in the areas of microwave circuit design and optimization. He is currently working towards the doctorate in applied sciences at the University of Ghent.

Mr. Tromp is a member of the Royal Society of Flemish Engineers.

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A. G. Williamson was born in Auckland, New Zealand, in 1948 and received the B.E. degree with first class honors in electrical engineering from the University of Auckland, Auckland, New Zealand, in 1970. In 1970 he began a masters degree program in microwave engineering, transferring to the Ph.D. program in 1971 subsequent to the award of

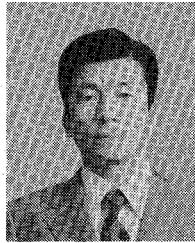


a New Zealand Universities Grants Committee Postgraduate Scholarship. His doctoral research is concerned with the analysis of various problems involving cylindrical antennas in rectangular waveguide, and with related problems. The submission of the dissertation is imminent.

During 1974 and 1975 he was employed by the New Zealand Broadcasting Corporation having first become associated with this organization as an engineering cadet in 1967.

Later he was employed by the Broadcasting Council of New Zealand. Since July 1975 he has been a Lecturer in the Department of Electrical Engineering at the University of Auckland. His present research interests are in the fields of microwaves, including the design of microwave solid-state equipment, VHF and UHF antenna design, and the numerical solution of electromagnetic field problems.

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Eikichi Yamashita (M'66) was born in Tokyo, Japan, on February 4, 1933. He received the B.S. degree from the University of Electro-Communications, Tokyo, Japan, and the M.S. and Ph.D. degrees from the University of Illinois, Urbana, all in electrical engineering, in 1956, 1963, and 1966, respectively.

From 1956 to 1964 he was a member of the Research Staff on millimeter-wave engineering at the Electrotechnical Laboratory, Tokyo, Japan. While on leave from 1961 to 1963 and from 1964 to 1966 he studied solid-state devices in the millimeter-wave region at the Electro-Physics Laboratory, University of Illinois. From 1966 to 1967 he was with the Antenna Laboratory at the same university. Since September 1967 he has been an Associate Professor with the Department of Applied Electronics, the University of Electro-Communications, Tokyo. His research work since 1956 has been on microstrip transmission lines, hybrid modes of Goubau lines, wave propagation in a gaseous plasma, pyroelectric-effect detector in the submillimeter-wave region, tunnel-diode oscillators, and wide-band laser modulators.

Dr. Yamashita is a member of the Institute of Electronics and Communications Engineers of Japan and Sigma Xi.