Contributors

Bishan S. Agrawal was born in India. He received the B.S. and M.S. degrees in physics from Agra University, Agra, India, and the Ph.D. degree in physics from the University of Nebraska, Lincoln, in 1963, 1965, and 1974, respectively.

From 1965 to 1967, he worked as a Research Assistant in B.I.T.S., Pilani, India, and from 1967 to 1970, he was a Lecturer with the Department of Physics, Chirawa College, Chirawa, India. From 1970 to 1974, he was a Teaching Assistant in the Physics Department of the University of Nebraska. He is currently with the Electrical Engineering Department of the same university. He has authored several papers in solid-state physics and electromagnetic theory.

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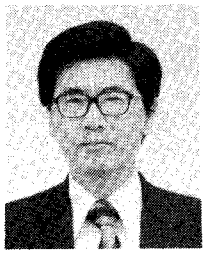

Kazuhiko Atsuki was born in Tokyo, Japan, on November 2, 1942. He received the B.S. and the M.S. degrees in electrical engineering from the University of Electro-Communications, Tokyo, Japan, in 1965 and 1967, respectively.

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, microstrip transmission lines, and wide-band laser modulators.

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

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Ezekiel Bahar (S'63–M'64–SM'72) received the B.Sc. and M.Sc. degrees in electrical engineering from the Technion—Israel Institute of Technology, Haifa, in 1958 and 1960, respectively, and the Ph.D. degree from the University of Colorado, Boulder, in 1964.

From 1958 to 1962, he was a Research Assistant and an Instructor at the Technion—Israel Institute of Technology. In 1962, he joined the Department of Electrical Engineering, University of Colorado, as a Research Associate and from 1964 to 1967, was an Assistant Professor. In 1967, he joined the Department of Electrical Engineering, University of Nebraska, Lincoln, as an Associate Professor and in 1971, became Professor of Electrical Engineering. His field of research is electromagnetic theory, propagation, and microwave theory. He has employed EM model studies to investigate the problem of propagation in nonuniform terrestrial waveguides. He has developed transform techniques to obtain full-wave solutions to problems of depolarization, diffraction, and scattering of radio waves in nonuniform layered structures. He has employed generalized characteristic vectors and developed generalized WKB techniques to solve problems of propagation in inhomogeneous anisotropic media.

Dr. Bahar is a member of Commissions B, C, and F of the International Union of Radio Science and a member of the IEEE Society on Antennas and Propagation and the Society on Microwave Theory and Techniques.

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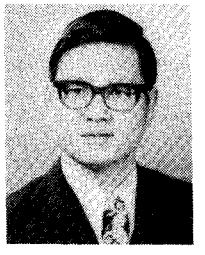

Ming Hui Chen (M'68) was born in Chechiang, China, on September 3, 1937. He received the B.S. degree in electrical engineering from the Cheng Kung University, Taiwan, China, in 1960, the M.S. degree in electronics from Chiao Tung University, Taiwan, China, in 1962, the M.S.E.E. degree from Utah State University, Logan, in 1964, and the Ph.D. degree in electrophysics from the Polytechnic Institute of Brooklyn, Farmingdale, NY, in 1969.

He was a Chief Microwave Engineer at Microtech Company, a Principal Engineer at Radiation Systems, Inc., a Member of the Technical Staff at Massachusetts Institute of Technology Lincoln Laboratory and COMSAT Laboratories. In 1970, he was also appointed as an Assistant Professor at George Washington University, Washington, DC. Since 1977, he has been with the TRW Systems Group at Redondo Beach, CA, as a Senior Technical Staff in the Antenna and Communication Laboratory. His major interests are microwave devices, antennas, and wave propagation in periodic structures.

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B. N. Das received the M.S. (Tech.) degree from the Institute of Radio Physics and Electronics, University of Calcutta, Calcutta, India, in 1956, and the Ph.D. degree from the Indian Institute of Technology, Kharagpur, in 1967.

He joined the Department of Electronics and Electrical Communication Engineering of the Indian Institute of Technology in 1958. At present, he holds the position of Professor in the same department.

Dr. Das is a member of the Institution of Electrical Engineers, England. He is a fellow of the Institution of Engineers, India.

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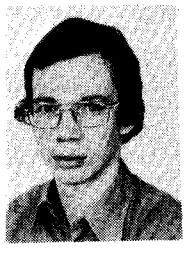
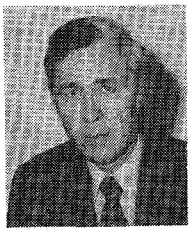


K. Gunnar Filipsson was born in Älvkarleby, Sweden, on April 3, 1949. He received the M.S. degree in electrical engineering from Chalmers University of Technology, Gothenburg, Sweden, in 1973.

Since 1974, he has been employed as a Research and Teaching Assistant in the Division of Network Theory, Chalmers University of Technology. His research interest is in the area of microwave ferrite circulators.

Claude Fray was born in Limoges, France, on June 14, 1942. He received the "Doctorat es Sciences" degree from the University of Limoges, Limoges, France, in 1977.

Since 1970, he has been an Assistant Professor at the Institute of Technology, University of Limoges. He is studying low-loss transmission lines for vehicular communications.

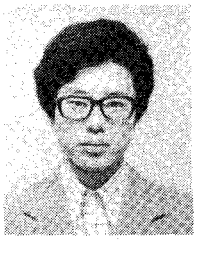


William J. Getsinger (S'48–A'50–M'55–SM'69) was born in Waterbury, CT, on January 24, 1924. He received the B.S. degree from the University of Connecticut, Storrs, in 1949, and the M.S. and Engineer degrees in electrical engineering from Stanford University, Stanford, CA, in 1959 and 1961, respectively.

Since 1950, he has worked in the field of microwave components at Technicraft Laboratories, Westinghouse Electric Company, Stanford Research Institute, and the Massachusetts Institute of Technology Lincoln Laboratory. In 1969, he joined COMSAT Laboratories, Clarksburg, MD, where he is currently Manager of the Microwave Circuits Department.

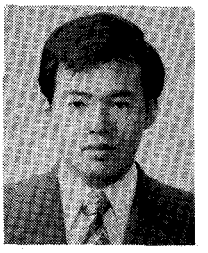
E. R. Bertil Hansson was born in Strömstad, Sweden, on June 20, 1945. He received the M.S. degree in electrical engineering from Chalmers University of Technology, Gothenburg, Sweden, in 1970.

Since 1970, he has been employed as a Research Assistant in the Division of Network Theory, Chalmers University of Technology, where he is leading a research group engaged in projects on microwave ferrite components. His current interests are mainly concerned with microwave circulators and phase shifters in planar techniques.



Osamu Hashimoto was born in Kakunodate, Japan, in April 15, 1953. He received the B.S. and the M.S. degrees in electrical engineering from the University of Electro-Communications, Tokyo, Japan, in 1976 and 1978, respectively.

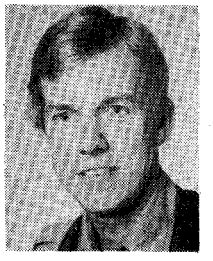
He is presently with Tokyo Shibaura Electric Company, Ltd.



Sei-ichi Inagaki was born in Osaka, Japan, on November 13, 1953. He received the B.E. and M.E. degrees in electrical communication engineering from Osaka University, Osaka, Japan, in 1976 and 1978, respectively. He worked there on research in the areas of electromagnetic theory and optical waveguides.

In 1978, he joined Matsushita Electric Industrial Company, Osaka, Japan.

Mr. Inagaki is a member of the Institute of Electronics and Communication Engineers of Japan.



Gerard H. in't Veld was born in Twello, The Netherlands, on July 16, 1950. Since November 1978, he has been completing his study in mathematics at the Technological University, Eindhoven, The Netherlands.

He joined N. V. Philip's Gloeilampenfabrieken Eindhoven, where he was first engaged in the field of integrated circuits and on the numerical analysis of color picture tubes. From 1976 to 1978, he worked at the Philips Research Laboratories on the numerical analysis of waveguide discontinuities.

Kouji Kamijo was born in Tokyo, Japan, on January 17, 1955. He received the B.S. degree in electrical engineering from the University of Electro-Communications, Tokyo, Japan, in 1978.

He is presently with Japan Broadcasting Corporation.

Masanori Kobayashi (M'79) was born in Niigata, Japan, on June 17, 1947. He received the B.E. and M.E. degrees in electrical engineering from the University of Ibaraki, Ibaraki, Japan, in 1970 and 1972, respectively.

Since 1972, he has been an Assistant in the Department of Electrical Engineering, University of Ibaraki. He worked mainly in the field of microwave integrated circuits. At present, his main fields of interest are multicoupled microstrip lines and electrostatic fields in multianisotropic media.

Mr. Kobayashi is a member of the Institute of Electrical Engineers of Japan and the Institute of Electronics and Communication Engineers of Japan.

Nobuaki Kumagai (M'59–SM'72) was born in Ryojun, Japan, on May 19, 1929. He received the B.Eng. and D.Eng. degrees from Osaka University, Osaka, Japan, in 1953 and 1959, respectively.

From 1958 to 1960, he was a Visiting Senior Research Fellow at the Electronics Research Laboratory of the University of California, Berkeley, where he was engaged in research on electromagnetic wave scattering and parametric amplifiers. From 1960 to 1970, he was an Associate Professor of Communication Engineering at Osaka University. In 1966, he was invited to the 11th G-MTT International Symposium as an invited speaker. Since 1971, he has been a Professor of Communication Engineering at Osaka University, Osaka, Japan, where he is engaged in research and education in electromagnetic theory, microwave and millimeter-wave engineering, optical waveguides and devices, and lasers and their applications. He is the coauthor of *Microwave Circuits* (OHM-sha, Tokyo, Japan, 1963) and *Introduction to Relativistic Electromagnetic Field Theory* (Corona Publishing Company, Tokyo, Japan, 1971).

Dr. Kumagai is a member of the Institute of Electronics and Communication Engineers of Japan, the Institute of Electrical Engineers of Japan, the Japan Society of Applied Physics, and the Physical Society of Japan.

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Paul R. McIsaac (S'49–A'59–M'60) received the B.E.E. degree from Cornell University, Ithaca, NY, in 1949, and the M.S.E. and Ph.D. degrees from the University of Michigan, Ann Arbor, in 1950 and 1954, respectively.

From 1954 to 1959, he was employed in the Research Department of the Microwave Tube Division of the Sperry Gyroscope Company, Great Neck, NY. In 1959, he joined the faculty of Cornell University, where he is Professor of Electrical Engineering. In 1975, he was appointed Associate Dean of the College of Engineering. His current research interests include the development of symmetry analysis methods for application to microwave and millimeter structures.

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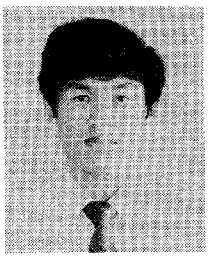

Katsumi Morishita (S'74–M'77) was born in Fukui, Japan, on February 24, 1949. He received the B.E., M.E., and D.E. degrees in electrical communication engineering from Osaka University, Osaka, Japan, in 1972, 1974, and 1977, respectively.

From 1977 to 1978, he was a Postdoctoral Fellow of the Japan Society for the Promotion of Science. Presently, he is a Postdoctoral Fellow in the Faculty of Engineering, Osaka University, engaged in research work in the area of electromagnetic field problems.

Dr. Morishita is a member of the Institute of Electronics and Communication Engineers of Japan.

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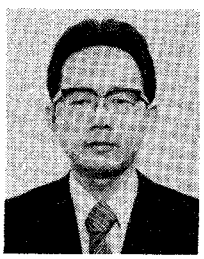

Naomichi Okamoto (S'66–M'66) was born in Maizuru, Japan, on March 20, 1942. He received the B.E. and M.E. degrees in electronic engineering from Shizuoka University, Hamamatsu, Japan, in 1964 and 1966, respectively, and the D.E. degree in electrical engineering from Osaka University, Osaka, Japan, in 1969, for work on matrix methods for electromagnetic field problems.

At present, he is an Associate Professor in the Department of Electronic Engineering, Faculty of Engineering, Shizuoka University. His main areas of interest are scattering by anisotropic media, antennas, microwave circuits, and numerical techniques.

Dr. Okamoto is a member of the Institute of Electronics and Communication Engineers of Japan.

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Albert Papiernik was born in Paris, France, on April 7, 1940. He received the "Agregation de Sciences Physiques" and the "Doctorat es Sciences" degrees from Orsay University, France, in 1964 and 1969, respectively.

From 1964 to 1970, he worked at the Centre National de la Recherche Scientifique on microwaves and linear accelerators. He has been a Professor at Limoges University, Limoges, France, since 1970. He is now engaged in studies of low-loss and beam microwave structures.

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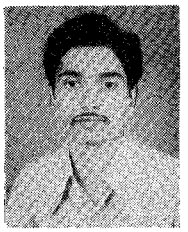

J. S. Rao was born in Vijayawada, India, on July 29, 1950. He received the B.E. degree in electronics and communication engineering from Andhra University, Waltair, India, in 1972.

He was with the Thermal Power Station, Paloncha, Andhra Pradesh, India, from 1973 to 1974. In 1974, he joined the Indian Institute of Technology, Kharagpur, as a Senior Research Assistant, where he has been engaged in research in the field of microwave engineering.

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Henry J. Riblet (A'45–M'55–F'58) was born in Calgary, Canada, on July 21, 1913. He received the B.S. and Ph.D. degrees from Yale University, New Haven, CT, in 1935 and 1939, respectively.

From 1939 to 1941, he taught mathematics at Adelphi College, Garden City, NY, and at Hofstra College, Hempstead, NY. He joined the staff of the Massachusetts Institute of Technology Radiation Laboratory, Cambridge, in 1942, and at the close of World War II was in charge of one of the three development sections of the Antenna Group. From 1946 to 1948, he headed the RF group at the Submarine Signal Company, Boston, MA. At present he is affiliated with the Microwave Development Laboratories, Inc., Needham Heights, MA.

Dr. Riblet is a member of the American Mathematical Society. In 1976, he was awarded the 1975 Microwave Career Award by the IEEE Professional Group, Microwave Theory and Techniques.

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Tullio E. Rozzi (M'66–SM'74) was born in Italy in September 1941. He received the degree of "dottore" in physics from the University of Pisa, Italy, in 1965, and the Ph.D. degree in electronic engineering from Leeds University, England, in 1968.

From 1968 to 1978, he was a Research Scientist at the Philips Research Laboratories, Eindhoven, The Netherlands. In this laboratory he worked in various areas of circuit and waveguide field theory, in particular, waveguide dis-

continuities. In 1975, he spent a year at the Electromagnetics Laboratory, Department of Electrical Engineering, University of Illinois at Urbana. Since October 1978, he has held a Chair in the Department of Electrical Engineering and Electronics at the University of Liverpool, England. At present, his interests lie in the propagation and scattering of waves in passive and active planar dielectric waveguides for optical communications.

Prof. Rozzi was awarded the IEEE Microwave Prize in 1975.

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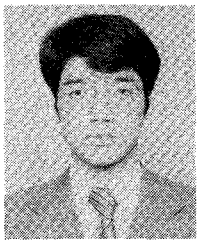

Takeshi Sugita was born in Ibaraki, Japan, on March 1, 1956. He received the B.E. degree in electrical engineering from the University of Ibaraki, Ibaraki, Japan, in 1978.

In 1978, he joined the Matsushita Electric Industrial Company, Ltd., Osaka, Japan.

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Jean Van Bladel (M'54–SM'56–F'75) was born in Antwerp, Belgium, on July 24, 1922. He received the E.E. degree in electrical engineering from Brussels University, Brussels, Belgium, in 1947, and the Ph.D. degree in electrical engineering from the University of Wisconsin in 1950.

From 1950 to 1954, he was Head of the Radar Laboratory of the MBLE Factories, Brussels, Belgium, and from 1954 to 1964, he taught at Washington University, St. Louis, MO, and at the University of Wisconsin. He is now a Professor of Electrical Engineering at the University of Ghent, Ghent, Belgium, and Director of the Laboratory for Electromagnetism and Acoustics of the University. He was Chairman of Commission B (Fields and Waves) of the International Radio Scientific Union (URSI) from 1975 to 1978, and Dean of the Faculty of Applied Science at the University of Ghent from 1976 to 1978.

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Marleen Verplanken was born in Ghent, Belgium, 1945. She received the Electrical Engineering degree from the University of Ghent, Ghent, Belgium, in 1969.

Currently, she is working as Senior Library System Analyst at the central library of the University of Ghent while pursuing research in the field of dielectric resonators.

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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. He became an Associate Professor in 1967, and in 1977 Professor in the Department of Applied Electronics, the University of Electro-Communications, Tokyo, Japan. 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, wide-band laser modulators, and optical fibers.

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