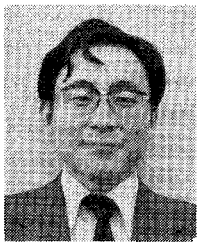
Contributors



Masami Akaike (M'76) was born in Kamakurashi, Kanagawa-ken, Japan, on October 15, 1940. He received the B.S., M.S., and Ph.D. degrees from the University of Tokyo, Tokyo, Japan, in 1964, 1966, and 1969, respectively.

Since joining the Musashino Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corporation, Tokyo, Japan, in 1969, he has been engaged in the research of millimeter-wave solid-state circuits and the development and design of repeaters and measuring equipment for a guided millimeter-wave transmission system. He is currently a Supervisor of the Millimeter-Wave Transmission Section, Trunk Transmission System Development Division, Yokosuka Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corporation.

Dr. Akaike is a member of the Institute of Electronics and Communications Engineers of Japan, and was a recipient of the 1971 IECEJ Yonezawa Memorial Scholarship.

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Nicolaos G. Alexopoulos (S'68–M'69) was born in Athens, Greece, on March 30, 1942. He received the B.S.E.E., M.S.E.E., and Ph.D. degrees from the University of Michigan, Ann Arbor, in 1964, 1967, and 1968, respectively.

Since 1969 he has been with the Department of Electrical Sciences and Engineering, University of California, Los Angeles, where he is an Associate Professor and Vice-Chairman. He spent the 1976-1977 academic year as a Visiting Professor with the National Technical University, Athens, Greece. His scientific interests are in applied EM theory and quantum electronics with present emphasis on integrated microwave circuits, microstrip antennas and integrated optics. He has published over 30 scientific papers and he has served as consultant with Hughes Aircraft, Watkins-Johnson, and TRW. He is presently a Consultant with Hughes Malibu, Research Laboratories.

Dr. Alexopoulos has worked for the IEEE in the capacity of Vice-Chairman and Chairman of the Antennas and Propagation Society in the Los Angeles area.

✣

Crawford Banks was born in Bessmer, AL, on April 11, 1923. He attended Howard University, Washington, DC, majoring in electrical engineering.

In 1951, he joined the Microwave Antennas and Components Branch of the Naval Research Laboratory, Washington, DC, where he worked on antennas, antenna components, and feed systems. He subsequently did research on ferrites, stripline, and planar transmission lines. Currently he is engaged in research and development of acoustic and magnetostatic surface wave devices.

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Osamu Banno, photograph and biography not available at time of publication.

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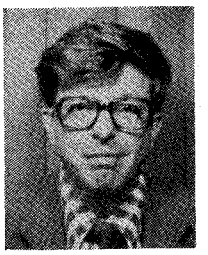
Jiro Chiba, photograph and biography not available at time of publication.



Haim Cory received the B.Sc., M.Sc., and D.Sc. degrees in physics from the Technion—Israel Institute of Technology, Haifa, Israel, in 1959, 1963, and 1967, respectively.

From 1968 to 1970, he worked as a Visiting Scientist in the Groupe de Recherches Ionosphériques, Saint-Maur-des-Fossés, France, on VLF and ELF propagation. Since 1970, he has been a Senior Lecturer in the Electrical Engineering Department of the Technion—Israel Institute of Technology. From 1970 to 1974, he worked on VLF, HF, and VHF propagation, and from 1974 to 1977, he worked on microwave devices. He is currently spending his sabbatical year in the Electrical and Electronic Engineering Department, Queen Mary College, London, England, where he does research on antennas.

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Achintya K. Ganguly received the Ph.D. degree in physics from New York University, New York, in 1965.

From 1965 to 1967, he worked at New York University on the theory of light scattering from quasi-particles in solids. From 1967 to 1972 he was a staff member at the General Telephone and Electronics Laboratories and worked on electron–phonon interactions in solids and surface acoustic wave propagation in piezoelectric materials. He joined the Naval Research Laboratory, Washington, DC, in 1972 as a Research Physicist. He is now working on magnetostatic and magnetoelastic surface wave propagation, electromagnetic wave propagation in waveguides.

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Shalom Halevy was born in Haifa, Israel, on July 30, 1950. He received the B.S. and M.Sc. degrees in electrical engineering from the Technion—Israel Institute of Technology, Haifa, Israel, in 1972 and 1978, respectively.

While pursuing his M.Sc. degree, he worked as an Assistant in the Department of Electrical Engineering at the Technion—Israel Institute of Technology. He is currently serving in the Israeli Defense Forces.

✣

Paul S. Henry (M'74) was born in Boston, MA in 1944. He received the A.B degree in 1965 and Ph.D. degree in 1971 in physics from Harvard and Princeton Universities, respectively.

Since 1970 Mr. Henry has been with Bell Laboratories, engaged in research on radio communication and radio astronomy instrumentation.

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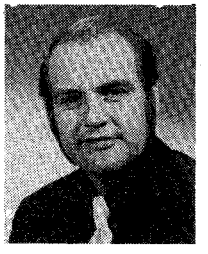

Bill J. Hunsinger was born in Roanoke, IL, on February 23, 1939. He received the B.S.E.E. degree from the University of Illinois, Urbana, in 1961, the M.S.E.E. degree from Bradley University, Peoria, IL, in 1966, and the Ph.D. degree in electrical engineering from the University of Illinois, Urbana, in 1970.

In 1961, he began work at the General Electric Company, Bloomington, IL, as an Advance Development Engineer, developing new solid-state control product lines. In 1967, he began

work as the Technical Director of the Advanced Development Department at the Magnavox Company, where he established the research program in SAW devices. This work led to the first programmable match filters, fold path large time bandwidth product delays, and spread spectrum communication links implemented with SAW devices. In 1974, he took a position at the University of Illinois, Urbana, as Associate Professor in the Electrical Engineering Department and as an Associate Research Professor in the Cordinated Science Laboratory. This work has improved SAW measurement and analysis techniques by orders of magnitude which in turn are leading to new modeling techniques and configurations such as the capacity weighted transducer, the high selectivity resonators, and the second-order equalized SAW transducers for harmonic operation.

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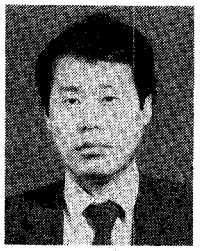

Mutsuo Ikeda was born in Yamanashi, Japan, on August 30, 1946. He received the B.E. degree in electrical engineering from Nihon University, Tokyo, Japan, in 1971.

In 1965, he joined the Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corporation, Musashino, Tokyo, Japan, where he has been engaged in research and development on millimeter-wave Schottky and IMPATT diodes.

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

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Tatsuo Inaba, photograph and biography not available at time of publication.

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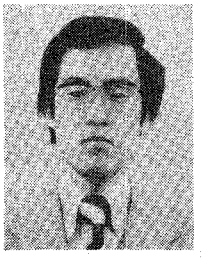

Ryoji Kawasaki was born in Kagoshima-shi, Japan, on September 8, 1950. He received the B.S. degree from Kyushu University, Fukuoka-shi, Japan, in 1973.

Since joining the Yokosuka Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corporation, Yokosuka-shi, Japan, in 1973, he has been engaged in the research of millimeter-wave solid-state circuits and measuring equipment. He is currently an Engineer of the Millimeter-Wave Transmission Section, Trunk Transmission System Development Division, Yokosuka Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corporation.

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

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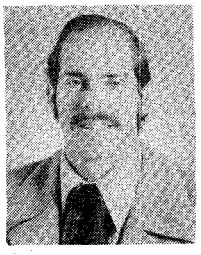

Clifford M. Krowne (S'73–M'74) was born in New York, NY, on October 2, 1948. He completed his undergraduate work at the University of California, Berkeley, and University of California, Davis, and received the B.S. degree in physics in 1970. He did graduate work at the Massachusetts Institute of Technology, Stanford University, and the University of California, Davis, and received the M.S. and Ph.D. degrees in electrical engineering from the University of California, Los Angeles, in 1972 and 1975, respectively.

In 1970 he was employed in the Microelectronics Division of Lockheed Missiles and Space Company, and in 1976 he joined the Technical Staff of Watkins–Johnson Company in Palo Alto, CA.

Dr. Krowne is a member of Phi Kappa Phi, Tau Beta Pi, and the American Physical Society.

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Yoshitomo Kuwamoto, photograph and biography not available at time of publication.

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Gottfried Magerl (M'78) was born in Vienna, Austria, on August 16, 1947. He received the Dipl. Ing. degree in electrical engineering, and the Dr. Techn. degree from the Technische Universität of Vienna, Austria, in 1972 and 1975, respectively.

Since 1972, he has been with the Institut für Hochfrequenztechnik of the Technische Universität of Vienna, Vienna, Austria. As a Research Associate and Research Assistant, he was engaged in the development of microwave measurement techniques, the design of microwave cavities for laser beam modulators, and in research on guided wave propagation. At present, he works on a tunable CO_2-laser source for high-resolution infrared spectroscopy.

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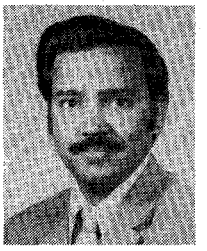

Shamsur R. Mazumder (S'74–M'76) received the B.Sc. (Eng.) degree from the Bangladesh University of Engineering and Technology, Dacca, Bangladesh, in 1968. He received the M.Eng. and Ph.D. degrees from the Department of Electronics, Carleton University, Ottawa, Ont., Canada, in 1973 and 1976, respectively.

From 1968 to 1971, he taught electrical engineering at the Bangladesh University of Engineering and Technology. He was a Post-Doctoral Fellow at Carleton University for six months during 1976. He is currently with the Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, as a Premier Assistant with the Chaire d'Electromagnétisme et d'Hyperfréquences.

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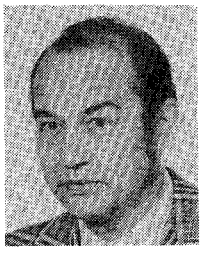

Robert W. McMillan was born in Sylacauga, AL on April 18, 1935. He received the Bachelor of Engineering Physics degree from Auburn University, Auburn, AL, in 1957, the M.S. degree in physics from Rollins College, Winter Park, FL, in 1966, and the Ph.D. degree in physics from the University of Florida, Gainesville, in 1974.

After serving two years in the U.S. Air Force, he joined the Electronics Division of the Westinghouse Corporation in 1960 where he worked as a Circuit Designer for two years. He then joined the Orlando Division of Martin Marietta Aerospace, where he worked for fifteen years as a Circuit Designer and Laser Physicist before assuming his current post in 1976 as a Senior Research Scientist at the Engineering Experiment Station of the Georgia Institute of Technology, Atlanta. He is presently working in the areas of atmospheric physics, millimeter and submillimeter-wave sources and receivers, optical and microwave spectroscopy, and microwave quasi-optical techniques.

Dr. McMillan is a member of the Optical Society of America.

Reza Mehran was born in Nadjafabad, Iran, on November 15, 1943. He received the Dipl. Ing. degree, as well as the Dr. Ing. degree from the Technical University of Aachen, Aachen, Germany, in 1969 and 1974, respectively.

Since 1974 he has been working on microstrip circuit problems as a Research and Teaching Assistant at the Department of Electrical Engineering, University of Duisburg, Duisburg, Germany.

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Theodore G. Mihran (S'43–A'51–SM'56–F'64) was born in Detroit, Michigan, on June 28, 1924. He received the A.B. degree in electrical engineering from Stanford University, Stanford, CA, in 1944. Following two years in the U.S. Navy, he returned to Stanford where he received the M.S. and Ph.D. degrees in electrical engineering in 1947 and 1950, respectively.

In 1950 he joined the staff of the Research Laboratory, now called the Research and Development Center, of the General Electric Company, Schenectady, NY. He has served as Visiting Professor or Lecturer at Cornell University, Union College, and Chalmers University, Gothenburg, Sweden. He has engaged in research in the fields of microwave tubes, plasma physics, MOSFET modeling, and microwave ovens. His work on nonlinear electron dynamics in electron beams has contributed significantly to the development of high efficiency klystrons. He is the author of thirty technical papers and has been granted eight patents.

Dr. Mihran a member of the Electron Devices Society and the Microwave Theory and Techniques Society. He also is a member of the American Physical Society, Tau Beta Pi, Phi Beta Kappa, and Sigma Xi. During 1971–1973 he served as Associate Editor of the IEEE Transactions on Electron Devices.

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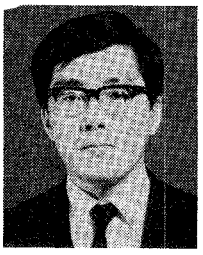

Hiroshi Okamoto (S'66–M'66) was born in Shizuoka, Japan, on January 22, 1942. He received the B.E. and M.E. degrees in electrical and electronics engineering from the University of Tokyo, Tokyo, Japan, in 1964 and 1966, respectively.

In 1966, he joined the Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corporation, Musashino, Tokyo, Japan, where he has been engaged in research and development on $BaTiO_3$ semiconducting ceramics, on vapor phase epitaxial growth of GaAs and its alloys with InAs, and recently, on millimeter-wave GaAs IMPATT devices.

Mr. Okamoto is a member of the Japan Society of Applied Physics, of the Institute of Electronics and Communication Engineers of Japan, and of the Optical Society of America.

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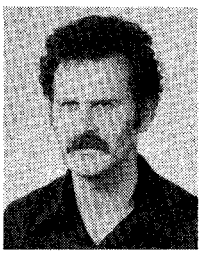
Carl M. Panasik was born in Cleveland, OH, on August 21, 1952. He received the B.E.E. degree from Cleveland State University, Cleveland, OH, in June 1974. He is a doctoral candidate in electrical engineering at the University of Illinois, Urbana.

He is currently a Research Assistant in the Surface Acoustic Wave Research Group at the Coordinated Science Laboratory. He has aided in the establishment of the CSL-SAW facility, particularly in the area of automated SAW device measurement and analysis.



Shalom Raz was born in Tel-Aviv, Israel, on June 27, 1935. He received the B.Sc. degree in electrical engineering from the Technion—Israel Institute of Technology, Haifa, Israel, in 1959, and the M.S. and Ph.D. degrees in electrophysics from the Polytechnic Institute of Brooklyn (now Polytechnic Institute of New York), Brooklyn, NY, in 1962 and 1966, respectively.

From 1966 to 1972, he was with the Polytechnic Institute of Brooklyn, where from 1966 to 1967, he was Instructor of Electrophysics; from 1967 to 1970, he was Assistant Professor, and from 1970 to 1972, he was Associate Professor of Electrophysics. He concurrently served as Consultant to the M.I.T. Lincoln Laboratory, Lexington, MA, and the Army Signal Corps, Fort Monmouth, NJ. Since 1972, he has been with the Faculty of Electrical Engineering, Technion—Israel Institute of Technology, Haifa, Israel. His current interests include analytical and numerical methods applied to wave scattering, inverse scattering, optimal microwave and antenna systems design, and various aspects of the target identification problem.

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Alain E. Ros was born in Neuilly, France, on December 23, 1939. He received the degree of "Licence de Physique, mention Electronique" from the University of Paris, Paris, France, in 1962. He received the degree of "Docteur, Spécialité Chimie Physique" from the University of Paris in 1967. He received his "Doctorat es Sciences" from the University of Nice, Nice, France, in June 1975.

From 1962, he worked in the Laboratory of Electronical Diffraction with Professor Rouault at the University of Paris on the realization of a high intensity molecular beam. After some months in the laboratory of Professeur Devienne (Laboratoire de Recherches Méditerranéennes, actually: Laboratoire de Physique des Hautes Energies) at the University of Nice, he entered the Laboratory of Astrophysics at the same University. In this laboratory, he realized a supra-conductive magnets-solar spectrograph. From October 1962 to September 1970, he was Assistant in Electricity at the University of Nice, and since October 1970, he has been in the Laboratory of Electronics as Maître-Assistant in Electronics. He joined the University of Singapore, Singapore, as Visiting Professor during the years 1976–1977. His current research is in the electromagnetic theory field.

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Joseph T. Ruscio was born in New Rochelle, NY, in 1924. He received the B.S. degree in physics from Monmouth College, West Long Branch, NJ, in 1962.

In 1957 he joined Bell Laboratories, Holmdel, NJ, where he was engaged in satellite communication projects Echo and Telstar, phase locking lasers, microwave link experiments, and quasi-optical systems.

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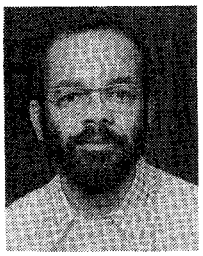
Risaburo Sato, photograph and biography not available at time of publication.



P. D. van der Puije received the B.Sc. (Eng.) degree from the University of Science and Technology, Kumasi, Ghana, in 1962. From 1963 to 1966, he was a graduate student at the Imperial College of Science and Technology, London, England, where he received the Ph.D. and D.I.C. degrees in electrical engineering.

For three and one-half years, he worked for Bell-Northern Research (then Northern Electric R&D) in Ottawa, Ont., Canada, on the development of the electronic telephone. In 1970 he became an Assistant Professor in the Department of Electronics at Carleton University, Ottawa, Ont., Canada, where he currently holds an Associate Professorship.

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Denis C. Webb (M'62) was born in Skowhegan, ME, on May 12, 1938. He received the B.S.E. degree in engineering physics in 1960, and the M.S. degree in physics in 1961, from the University of Michigan, Ann Arbor. He received the Ph.D. degree in applied physics from Stanford University, Stanford, CA, in 1971.

From 1961 to 1966, he was employed by the Westinghouse Defense and Space Center, Baltimore, MD, where he conducted research and development on microwave propagation structures and on YIG magnetostatic wave devices. From 1971, he worked at the Physical Electronics Laboratories, Menlo Park, CA, developing YIG-tuned Gunn oscillators. In 1972, he joined the Microwave Acoustics Group at the Naval Research Laboratory, Washington, DC. His current work is devoted to research and development of acoustic and magnetostatic surface wave devices for signal processing.

Dr. Webb is a member of Tau Beta Pi.

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Gerard T. Wrixon (M'75) was born in Limerick, Ireland, on May 25, 1940. He received the B.E. degree with honors from the National University of Ireland, Cork, Ireland, the M.Sc. degree from the California Institute of Technology, Pasadena, and the Ph.D. degree from the University of California, Berkeley, all in electrical engineering, in 1961, 1964, and 1969, respectively.

From 1961 to 1963 he was with Fokker, the Royal Netherlands Aircraft Factory, Amsterdam, The Netherlands, as a Research and Development Engineer, specializing in the field of aircraft navigational systems. From 1964 to 1965 he was an Instructor in the Electrical Engineering Department at Loyola University, Los Angeles, CA. While a graduate student at the University of California, Berkeley, he served as a Research Assistant in the Radio Astronomy Laboratory and Acting Instructor in the Electrical Engineering Department. From 1969 to 1974 he was a Member of the Technical Staff at the Crawford Hill Laboratory, Bell Laboratories, Inc., Holmdel, NJ. He is currently a Lecturer in Electrical Engineering at University College, Cork, Ireland, and Director of the European Millimeter Diode Laboratory. He is a Consultant to the European Space Agency and the Engineering Experiment Station, Georgia Institute of Technology, on the design of Schottky-barrier diodes and mixers for millimeter-wave applications.