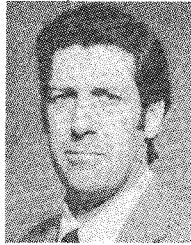


# Contributors



**Donald M. Bolle** (S'56-M'57-SM'66) was born in Amsterdam, The Netherlands, on March 30, 1933. He received the B.Sc. degree with honors in electrical engineering from Kings College, Durham University, England, in 1954, and the Ph.D. degree in electrical engineering from Purdue University, West Lafayette, IN, in 1961.

From 1954 to 1955, he was a Research Engineer with the Electrical Musical Industries, Middlesex, England. He taught at Purdue University from 1956 to 1962, first as an Instructor, then as an Assistant Professor in Electrical Engineering. He spent the academic year 1962 to 1963 in the Department of Applied Mathematics and Theoretical Physics, Cambridge University, England, as an NSF Postdoctoral Fellow. In 1963, he joined Brown University, Providence, RI, where he is presently Professor of Engineering. He was a Visiting Professor at the Institute for High-Frequency Techniques of the Technical University of Braunschweig, Germany, in 1967, and at the University of Colorado, Boulder, in 1972. His research interests lie in acoustic and electromagnetic propagation, radiation, and scattering.

Dr. Bolle is a member of Eta Kappa Nu, Tau Beta Pi, Sigma Xi, ASEE, AAAS, and AAUP. He is currently Editor-in-Chief of the IEEE Journal on Oceanic Engineering.



**J. Brian Davies** (M'73) was born in Liverpool, England, on May 2, 1932. He received the B.A. degree in mathematics from Jesus College, Cambridge, England, in 1955, the M.Sc. degree in mathematics in 1957, and the Ph.D. degree in mathematical physics in 1960, both from the University of London, London, England.

From 1955 to 1963 he worked at the Mullard Research Laboratories, Salfords, Surrey, England, except for the period between 1958 and 1960 spent at University College, London. In 1963 he joined the staff of the Department of Electronic and Electrical Engineering, University of Sheffield, Sheffield, England. Since 1967 he has been on the staff at University College, London, where he is now Reader in Electrical Engineering. For the year 1971-1972 he was a Visiting Scientist at the National Bureau of Standards, Boulder, CO. His work has been concerned with problems of electromagnetic field theory, and he is currently interested in computer methods of solving such problems.

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

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**Ray J. Copplestone** was born in Portsmouth, England, on October 31, 1943. He received the ACGI and the B.Sc. (Eng) degree in electrical engineering from Imperial College, London University, London, England, in 1965 and the M.Sc. degree in microwave physics from Portsmouth Polytechnic, Portsmouth, England, in 1973. He has just completed his research project for his doctorate, as an industry-based student of Imperial College, and is currently preparing his thesis on reciprocal and nonreciprocal wave-

guide junctions. He has been a Research Engineer with the Plessey Co. Ltd., England, and is now on the scientific staff of the Hirst Research Centre, General Electric Co. Ltd., Wembley, England.

Mr. Copplestone is a member of the Institute of Physics, Institute of Mathematics and Its Applications, and Institution of Electrical Engineers, and is a Chartered Engineer.

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**David M. Drury** was born in Casco, WI, on August 1, 1951. He received the B.S.E.E. degree from the Milwaukee School of Engineering, Milwaukee, WI, in 1972, the M.E.E. degree from the Midwest College of Engineering, in 1975, and the Ph.D. degree in electrical engineering from Marquette University, Milwaukee, WI, in 1978.

From 1972 to 1976, he was a Development Engineer with Motorola Communications Division in Schaumburg, IL, and was engaged in the development of two-way HF-SSB marine radios. Since 1978, he has been a member of the technical staff of Sandia Laboratories, Albuquerque, NM.

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**Jean Pierre Crenn** was born in Saint-Raphaël, France, on October 22, 1938. He graduated in electronic engineering from the Ecole Supérieure d'Electricité, Paris, France, in 1961.

After graduation he joined the Commissariat à l'Energie Atomique where he worked on the Saturne proton synchrotron at Saclay. In 1970, he joined the Département de Physique des Plasmas et de la Fusion Contrôlée, at Fontenay-aux-Roses, where he worked, first, in a microwave laboratory and then, since 1975, in a far-infrared laboratory. Since 1970, his work has been concerned with microwave and far-infrared diagnostics on Tokamak plasmas.

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**John G. Fikioris** was born in Sparta, Greece, on April 9, 1931. He received the Diploma of E.E. and M.E. from the National Technical University of Athens, Greece, in 1955. He received the M.S.E.E. degree from Rensselaer Polytechnic Institute, Troy, NY, in 1958, and the M.A. and Ph.D. degrees in applied physics from Harvard University, Cambridge, MA, in 1963.

From 1962 until early 1966, he worked as a Research Scientist with the RAD division of Avco Corporation, Wilmington, MA. From January 1966 to June 1972, he was, initially, Associate Professor and then Professor of Electrical Engineering at the University of Toledo, OH. In May 1972, he was elected Professor of wireless and long distance communications at the National Technical University of Athens, a position that he holds to date. His main fields of interest include

antennas and wave propagation, diffraction and scattering, boundary value problems in potential and electromagnetic theory, and applied mathematics.

Dr. Fikor is a member of Sigma Xi.



**T. Koryu Ishii** (M'55-SM'65) was born in Tokyo, Japan, on March 18, 1927. He received the B.S. degree in electrical engineering from Nihon University, Tokyo, in 1950, and the M.S. and Ph.D. degrees in electrical engineering from the University of Wisconsin, Madison, in 1957 and 1959, respectively. He also received the Doctor of Engineering degree from Nihon University in 1961.

From 1949 to 1956, he worked on research of microwave circuits and amplifiers and instructed students at the Nihon University. From 1956 to 1959, he worked, particularly, on research of the noise figures of microwave amplifiers at the University of Wisconsin. Since 1959, he has been with Marquette University, Milwaukee, WI.

At present, he is a Professor of Electrical Engineering. His research areas include millimeterwaves and microwave ferrite devices, thermionic and solid-state devices, circuit components and transmission lines, applications of microwaves, millimeterwaves, and quantum electronics.

Dr. Ishii is a member of Sigma Xi, Eta Kappa Nu, Sigma Phi Delta, Tau Beta Pi, ASEE, AAUP, PCM, WSPE, NSPE, IECE of Japan, and is a registered Professional Engineer in the State of Wisconsin.

**Joseph Kiernicki** (S'78) was born in Detroit, MI, on January 17, 1956. Currently, he is finishing work for the B.S. degree in electrical engineering at Wayne State University, Detroit, MI.

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**Martin Kiernicki** (S'78) was born in Detroit, MI, on January 17, 1956. Currently, he is finishing work for the B.S. degree in electrical engineering at Wayne State University, Detroit, MI.

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**Leonard Lewin** (A'69-SM'75) was born in Southend-on-Sea, England, on July 22, 1919.

During World War II he was with the British Admiralty doing research on antenna design, waveguides, and radar. In 1946, he joined Standard Telecommunication Laboratories, Harlow, England, where he became Head of the Microwave Laboratory in 1950, and Assistant Manager of the Transmission Laboratory in 1962. Currently he is Professor of Electrical Engineering, at the University of Colorado, Boulder. He is the author of many papers and patents in the field of antennas and waveguides, as well as author of three research books.

Mr. Lewin is a member of the Institution of Electrical Engineers and a fellow of the British Interplanetary Society. He won the Microwave Prize for a paper on singular integral equations applied to waveguides in 1962. In 1967 he was awarded an honorary degree of Doctor of Science from the University of Colorado.

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**Hidehiko Katoh** was born on January 19, 1941. He received the B.S. degree in physics from Kyoto University, in 1963, and the Dr. Eng. degree from Osaka University, Osaka Japan, in 1977.

He joined the Central Research Laboratories, Nippon Electric Co., Ltd., Kawasaki, Japan, in 1963, and since then he has been engaged in the research and development of striplines and thin-film lumped elements for microwave integrated circuits and lumped-element circulators. He is now a Research Specialist of the Electron Device Laboratory and is working on low-noise or high-power microwave transistor amplifiers.

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



**James C. Lin** (S'65-M'71-SM'77) was born on December 29, 1942. He received the B.S. degree in electrical engineering in 1966, and the M.S. and Ph.D. degrees in 1968 and 1971, respectively, all from the University of Washington, Seattle.

He is presently an Associate Professor in the Department of Electrical and Computer Engineering, and Director of the Biomedical Engineering Program at Wayne State University, Detroit, MI. His principal research interests are modern applications of electromagnetic energy including biological effects and medical applications of microwaves. Before joining Wayne State University in 1974, he was assistant professor of Rehabilitation Medicine and Assistant Director of the Bioelectromagnetics Research Laboratory, University of Washington School of Medicine. He was also an investigator in their Center for Bioengineering. Since 1973, he has been a scientific consultant to several private and governmental research laboratories. He served as a member of Governor Milliken's Task Force to Review Project Seafarer. He is the author of the book *Microwave Auditory Effects and Applications* (Charles C. Thomas, Publisher).

Dr. Lin is a member of Sigma Xi, U.S. National Committee of URSI, Commissions A and B, the IEEE Committee on Man and Radiation and



**Abdel-Messias Khilla** was born in Assiut, Egypt, in March 1946. He received the B.S. (honors) and the M.S. degrees in electrical engineering from Assiut University, Assiut, Egypt, in 1967 and 1973, respectively.

From 1968 to 1971, he was in the Egyptian Army. From 1971 to 1974, he was a Teaching Assistant at Assiut University. Since 1974, he has been working on ferrite devices. He is now working towards the doctorate degree at the Department of Electrical Engineering, University of Duisburg, Duisburg, Germany.

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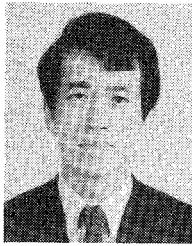
ANSI Subcommittee C95.4 on Radiation Hazards with Respect to Personnel, and Chairman of Dosimetry Section. He is a recipient of IEEE Transactions on *Electromagnetic Compatibility* Best Paper Award. He is a member of the editorial boards of *IEEE Transactions on Microwave Theory and Techniques*, *Journal of Environmental Pathology and Toxicology*, *Journal of Microwave Power* and the new *Bioelectromagnetics Journal*.



**M. Razaz** received the M.Sc. and Ph.D. degrees in electrical engineering from the University of Manchester Institute of Science and Technology, England, and University College, London, England, respectively. From 1973 to 1976 he was a Research Assistant, working towards the Ph.D. degree at the Department of Electronic and Electrical Engineering, University College, London, where he was engaged in the numerical solution of electromagnetic problems.

Since 1977 he has been a Post-Doctoral Research Fellow at the Department of Electronic and Electrical Engineering, University of Sheffield, England, where he is engaged on computer modeling of charge-coupled devices.

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**Masataka Mitama** (S'68-M'71) was born on May 22, 1944. He received the B.S. degree from Shizuoka University, Hamamatsu, Japan, in 1969, and the M.S. degree from the University of Tokyo, Japan, in 1971, both in electronics engineering.

In 1971, he joined the Central Research Laboratories, Nippon Electric Co., Ltd., Kawasaki, Japan, where he worked on numerical analysis of gas discharge phenomena and millimeterwave IMPATT diode oscillators.

Since 1975, he has been engaged in the research and development of low-noise GaAs FET amplifiers.

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

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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 Professional Group, Microwave Theory and Techniques.

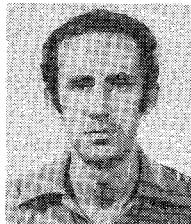
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**B. Olle Nilsson** was born in Göteborg, Sweden, on October 25, 1934. He received the Civ. Ing. and Tekn. Dr. degrees in electrical engineering from Chalmers University of Technology, Göteborg, Sweden, in 1959 and 1968, respectively.

Since 1959, he has been employed at the Electron Physics Department of Chalmers University of Technology where he is an Assistant Professor. His past research dealt with electron-beam parametric amplifiers and later with nonlinearities in linear-beam microwave tubes and IMPATT-diode amplifiers. Currently, he is engaged in work on laser techniques and different biological aspects of electromagnetic radiation.

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**John A. Roumeliotis** was born in Corinth, Greece, on January 2, 1953. He received the Diploma of E.E. and M.E. from the National Technical University of Athens, Greece, in 1975. He is presently working for the Ph.D. degree in electrical engineering at the National Technical University of Athens, Greece.

His main fields of interest include scattering, waveguide propagation, and boundary value problems in electromagnetic theory.

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**Lars Pettersson** (M'77) was born in Valdemarsvik, Sweden, on April 7, 1949. He received the Civ. Ing. degree in electrical engineering from Chalmers University of Technology, Göteborg, Sweden, in 1973.

Since 1973, he has been employed at the Electron Physics Department of Chalmers University of Technology as a Research Assistant. He is presently working on microwave antennas.



**Eugene W. Sard** (A'49-M'55-SM'69-F'73) was born in Brooklyn, NY, on December 21, 1923. He received the B.S. and M.S. degrees in electrical engineering from the Massachusetts Institute of Technology, Cambridge, in 1944 and 1948, respectively.

From 1944 to 1946, he served in the U.S. Naval Reserve as a Radar Officer. From 1946 to 1948, he was a Research Assistant in M.I.T.'s Department of Electrical Engineering where he worked on digital computers. In 1948, he joined

the Radar Department of the AIL Division of Cutler-Hammer (formerly Airborne Instruments Laboratory). He is presently a consultant in the Advanced Microwave Systems Department of the AIL Division, Melville, NY. For the past 20 years he has been working on applications of semiconductor diodes to various fields including low-noise amplification, mixing, and harmonic generation.

Mr. Sard is a member of Sigma Xi.



**Ingo Wolff** was born in Köslin, Germany, on September 27, 1938. He received the Dipl.-Ing. degree, the Dr.-Ing. degree, and the Habilitation degree from the Technical University Aachen, Germany.

From 1964 to 1974, he worked on millimeterwave techniques, microwave ferrite techniques, and microstrip techniques at the Technical University of Aachen. Since 1974, he has been a Professor of Electrical Engineering at the University of Duisburg, Germany.

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**Salvador H. Talisa (M'76)** was born in Lima, Peru, on December 17, 1951. He received the degree of electrical engineering from the Escuela Técnica Superior de Ingenieros de Telecomunicación de Barcelona, Spain, in 1976, the Sc.M. degree from Brown University, Providence, RI, in June 1978, and is presently working towards the doctoral degree.

He joined the Division of Engineering, Brown University, Providence, RI, in 1976, as a Research Assistant. His interests lie in the area of electromagnetic theory and propagation.



**Paul B. Wollschlaeger** received the M.D., F.A.C.R., and F.A.R. degrees; and the Dr. med. degree from Ludwig Maximilians University, München, Germany, in 1955.

His postdoctoral studies are in internship and residency in radiology. He received a Special Fellow (N.I.H.) in Neuroradiology in 1961. He has been a Professor of Radiology since 1968 at Missouri and Wayne State Universities. His special interests are in noninvasive medical diagnostic methods.

Dr. Wollschlaeger is a member of Sigma Xi, AIUM, ASNR, RSNA, and AUR.