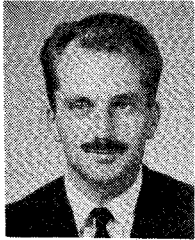


Contributors



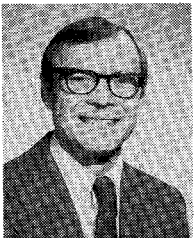
John C. Beal (M'66) was born in London, England, on July 15, 1933. He received the B.Sc. and Ph.D. degrees in electrical engineering, both from University College, London, London, England, in 1958 and 1964, respectively.

From 1962 to 1965 he was a Research Engineer with Redifon, Ltd., England. He then became Assistant Professor of Electrical Engineering at Colorado State University, Fort Collins. In 1967 he joined the staff of Queen's University, Kingston, Ont., Canada, where he is now Professor of Electrical Engineering and is engaged in research on the electromagnetic aspects of guided communications systems and in coordinating a multidisciplinary team studying the impact of telecommunications on society.



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, Madison, in 1950.

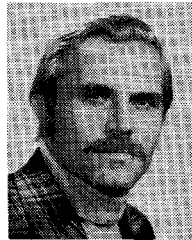
From 1950 to 1954 he was Head of the Radar Laboratory of the MBL factories, Brussels, Belgium, and from 1954 to 1964 he taught at Washington University, St. Louis, Mo., and at the University of Wisconsin. Currently, he is a Professor of Electrical Engineering at the University of Ghent, Ghent, Belgium, and Director of the Laboratory for Electromagnetism and Acoustics, University of Ghent. He was Brittingham Visiting Professor at the University of Wisconsin during the summer of 1974.



Carl H. Durney (S'60-M'64) was born in Blackfoot, Idaho, on April 22, 1931. He received the B.S. degree from Utah State University, Logan, and the M.S. and Ph.D. degrees from the University of Utah, Salt Lake City, all in electrical engineering in 1958, 1961, and 1964, respectively.

From 1958 to 1959 he was employed as an Associate Research Engineer with the Boeing Airplane Company, Seattle, Wash., where he studied the use of delay lines in control systems. In 1963 he became Assistant Research Professor in electrical engineering at the University of Utah. From 1965 to 1966 he was employed at the Bell Laboratories, Holmdel, N. J., while on leave from the University of Utah. During this time he worked in the area of microwave avalanche diode oscillators. Again in 1971 he was engaged in study and research involving microwave biological effects at the University of Washington while on leave from the University of Utah. He is presently an Associate Professor in electrical engineering at the University of Utah, where he is engaged in teaching and research in electromagnetics, engineering pedagogy, and microwave biological effects.

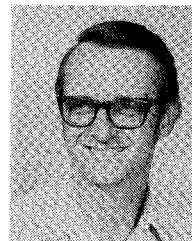
Dr. Durney is a member of Sigma Tau, Phi Kappa Phi, Sigma Pi Sigma, Eta Kappa Nu, and the American Society for Engineering Education.



Clifford W. Erickson was born in Duluth, Minn. He received the B.A. degree *cum laude* and the M.A. degree, both in engineering sciences, from Harvard University, Cambridge, Mass., in 1958 and 1960, respectively, and the Ph.D. in physics from the University of Wisconsin, Madison, in 1967. In 1958-1959 he attended the University of Stockholm, Stockholm, Sweden, under a Rotary Foundation Fellowship for International Understanding.

From 1961 to 1962 he was a Technical Staff Member at Sandia Laboratories in the Nuclear Burst Studies Division, where he developed p-n junctions for the detection of soft X-rays and used them successfully on the Starfish Shot. While at the University of Wisconsin he developed a new diagnostic tool for extracting ions from a magnetically confined plasma, and used this tool in measuring the ion distribution function. From 1967 to 1968 he was a Visiting Scientist at the Institut für Plasmaphysik, Garching bei München, Germany. He joined the Honeywell Corporate Research Center, Bloomington, Minn., in 1968, where he has worked in the areas of electronic flash tube triggering, gas-filled ultraviolet detectors, mass spectrometry of ions formed at high pressure, and applications of microwave technology. He holds 2 patents and has published 12 papers on the results of his research.

Dr. Erickson is a member of the American Physical Society and the Society of Harvard Engineers and Scientists.



Curtis C. Johnson (M'56-SM'63) was born in Long Beach, Calif., on November 7, 1932. He received the B.S. and M.S. degrees from the California Institute of Technology, Pasadena, and the Ph.D. degree from Stanford University, Stanford, Calif., all in electrical engineering in 1954, 1955, and 1958, respectively.

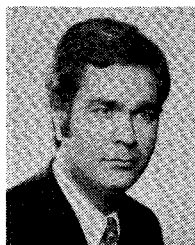
He was employed by the General Electric Microwave Laboratory, Palo Alto, Calif., from 1955 to 1958 while on a General Electric Fellowship at Stanford. He was employed by the Hughes Research Laboratory, Malibu, Calif., from 1958 to 1961. He was an Assistant and Associate Professor in electrical engineering at the University of Utah, Salt Lake City, from 1961 to 1967 engaged in research on microwave devices and electromagnetic waves. In 1967 he joined the Bioengineering Center at the University of Washington, Seattle, Wash., where he became Assistant Director in 1969 and was involved in the research and development of biomedical instrumentation and biological microwave effects. In 1972 he returned to the University of Utah as a Professor in the Department of Biophysics and Bioengineering as a Director of the Institute of Biomedical Engineering, continuing his research in bioinstrumentation and biological electromagnetic wave effects.



Samir F. Mahmoud (S'69-M'73) received the B.Sc. degree in electrical engineering from Cairo University, Cairo, Egypt, in 1964, when he was appointed as a Teaching and Research Assistant. He received the M.Sc. Eng. and Ph.D. degrees, both in electrical engineering, from Queen's University, Kingston, Ont., Canada, in 1970 and 1973, respectively.

During 1973-74 he joined the Cooperative Institute for Research in Environmental

Sciences, University of Colorado, Boulder, as a Visiting Fellow. His current research topic is guided electromagnetic waves in mine tunnels. He is now a Lecturer in the Department of Electrical Engineering, Cairo University, Cairo, Egypt.



Habib Massoudi was born in Nishabour, Khorassan, Iran, on July 23, 1940. He received the B.Sc. degree from the Teacher's Training College, Tehran, Iran, and the M.S. degree from the University of Tehran, Iran, both in physics in 1964 and 1970, respectively.

He worked as a Physics Teacher in Iran from 1964 to 1970. He is currently working towards the Ph.D. degree in electrical engineering at the University of Utah, Salt Lake

City.

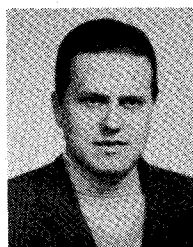


Wolfgang F. G. Mecklenbräuker was born in Dortmund, Germany, on June 16, 1938. He received the Dipl. Ing. degree in electrical engineering from Aachen University, Aachen, Germany, in 1964, and the Ph.D. degree in electrical engineering from Darmstadt University, Darmstadt, Germany, in 1969.

He was a Research Associate at Darmstadt University from 1964 to 1970, where he worked on network theory and system theory. In 1971 he joined the Philips Research Laboratories, Eindhoven, The Netherlands, where he is

engaged in network theory and digital processing of signals.

Dr. Mecklenbräuker is a member of the Nachrichtentechnische Gesellschaft (NTG), Germany.



Vittorio Rizzoli was born in Bologna, Italy, in 1949. He graduated from the School of Electrical Engineering, the University of Bologna, Bologna, Italy, in 1971.

From 1971 to 1973 he was with the Centro Onde Millimetriche of the Fondazione Ugo Bordoni dealing with microwave integrated circuits. In 1973 he spent a period of time in the United States working with the Hewlett-Packard Company, Palo Alto, Calif., in the area of microwave power devices. Since

January 1974 he has been Assistant Professor at the University of Bologna.

Mr. Rizzoli was awarded the G. Marconi Prize for Scientific Research in 1974.



T. E. Rozzi (M'66-SM'74) was born in Civitanova, Italy, on Sept. 13, 1941. He received the "Dottore" degree in physics from the University of Pisa, Pisa, Italy, in 1965, and the Ph.D. degree in electronic engineering from Leeds University, Leeds, England, in 1968.

From 1963 to 1965, while at Pisa University, he worked on the Zeeman and Stark effects at microwave frequencies. In 1965 he joined the Electronic Engineering Department of Leeds University, where he pursued research in microwave network theory. Since 1968 he has been a Research Scientist at the Philips Research Laboratories, Eindhoven, The Netherlands. In this laboratory he has been engaged in the areas of nonlinear guided-wave propagation, algebraic invariants of linear networks, and characterization of waveguide discontinuities by means of network and field theoretical methods.