Contributors to This Issue

Harry W. Adelmann, A.A.S., 1970, Warren County Technical School; Bell Laboratories, 1970—. Mr. Adelmann is presently involved in the area of digital signal processing which includes digital TASI and digital syllabic companding.

John C. Baumhauer, Jr., B.S. in M.E., 1968, Drexel University; M.S., 1970, and Ph.D., 1973, in Mechanics, Rensselaer Polytechnic Institute; Bell Laboratories, 1973—. Mr. Baumhauer has been engaged in the development and design of electroacoustic telephone transducers. Initially, he did analytical work in the development of an electret transmitter. Later, he had engineering responsibility for granular carbon microphones. He has taught an in-hours course on the operational principles and modeling of electroacoustic devices. More recently, he has completed the design of a piezoelectric ceramic sounder unit, and has been involved with electrodynamic loudspeakers and piezoelectric polymer transducers. Member, Acoustical Society of America, Sigma Xi, Pi Tau Sigma.

George W. Berkstresser, B.S. (Chemical Engineering), 1966, University of Southern California; Ph.D. (Chemical Engineering), 1973, University of Southern California; Tlargi Rubber Tech. Fd., 1966–68; Fractionation Research, 1968; Bell Laboratories, 1973—. From 1973 to 1978, Mr. Berkstresser was involved in the development of optoelectronic displays, optoisolators, and LED sources for optical fiber systems. Presently, he is engaged in epitaxial growth of magnetic bubble garnets. Member, American Chemical Society, American Institute of Chemical Engineers.

Alex M. Brzezinski, A.A.S., 1963, De Vry Technical Institute; B.S. in Physics, 1972, Butler University; Bell Laboratories, 1963—. Mr. Brzezinski has worked in electroacoustic transducer design and devel-

opment. Transducer technologies involved have been granular carbon, electromagnetic, piezoelectric and electret.

F. S. Chen, B.S., 1951, National Taiwan University; M.S.E.E., 1955, Purdue University; Ph.D. 1959, The Ohio State University; Bell Laboratories, 1959—. Mr. Chen has worked in the development of ferrite devices, masers, and optical modulators, and is presently engaged in development of lightwave transmitter subsystem.

Aland K. Chin, B.A., 1972, Brandeis University; M.S., 1975, Cornell University; Ph.D., 1977, Cornell University; Senior Research Engineer, Honeywell Electro-Optics Center, 1977–1978; Bell Laboratories, 1978—. Mr. Chin is involved in the design, processing, and characterization of light-emitting diodes for optical communication systems. Member, American Physical Society, American Association for the Advancement of Science, Phi Beta Kappa.

Yau-Chau Ching B.E. (E.E.), 1966, City College of New York; and Ph.D. (E.E.), 1969, New York University; Bell Laboratories, 1969—. Mr. Ching's research activities include various aspects of digital signal processing. His recent interests are digital speech interpolation and adaptive DPCM encoding of speech signals.

Susan W. Christensen, B.A. (mathematics), 1972, Vassar College; Bell Laboratories, 1973—. Ms. Christensen is a member of the Acoustics Research Department, where she has worked on problems in speech synthesis, digital speech processing, and speech recognition.

David D. Falconer, B.A.Sc., 1962, University of Toronto; S.M., 1963, and Ph.D., 1967, Massachusetts Institute of Technology; postdoctoral research, Royal Institute of Technology, Stockholm, 1966–1967; Bell Laboratories, 1967—. Mr. Falconer has worked on problems in communication theory and high-speed data communication. During 1976–77, he was a visiting professor of electrical engineering at Linköping University, Linköping, Sweden. He presently supervises a group working on digital signal processing for speech bit rate reduction. Member, Tau Beta Pi, Sigma Xi, IEEE.

Ben Gotz, B.E.E., 1966, The City College of New York; M.E.E., 1968, Ph.D., 1971, New York University; Bell Laboratories, 1966–1969,

1971—. Mr. Gotz is presently engaged in studies related to speech coding for bit rate compression.

Nuggehally S. Jayant, B.Sc. (Physics and Mathematics), 1962, Mysore University; B.E., 1965, and Ph.D. (Electrical Communication Engineering). 1970, Indian Institute of Science, Bangalore; Research Associate at Stanford University, 1967–1968; Bell Laboratories, 1968—. Mr. Jayant was a Visiting Scientist at the Indian Institute of Science from January–March 1972 and August–October 1975. He has worked on coding for burst error channels, detection of fading signals, statistical pattern discrimination, spectral analysis, and problems in adaptive quantization and prediction, with special reference to speech signals. He is also editor of an IEEE Reprint Book of *Waveform Quantization and Coding.*

Michael A. Karr, B. S. (E.E.), 1974, Fairleigh-Dickinson University; Bell Laboratories, 1962—. Mr. Karr was involved in ruby and Q-switched Nd:YAG laser development and nonlinear optics. More recently in the field of fiber optics, he was concerned with package design for the Atlanta fiber system experiment. His current work is in the development of fiber optic devices.

Vassilis G. Keramidas, Ph.D. (Solid State Science), 1973, Materials Research Laboratory, Pennsylvania State University; Bell Laboratories, 1973—. Mr. Keramidas has worked on III–V LEDs for displays and optoelectronics, and on ohmic contacts to III–V compound semiconductors. He is currently involved in the crystal growth and characterization of $Ga_{1-x}Al_xAs$ and $Ga_xIn_{1-x}As_yP_{1-y}$ LEDs for lightwave communications. Member, Electrochemical Society, American Association for the Advancement of Science, and American Association for Crystal Growth.

Kurt H. Mueller, Diploma (E.E.) 1961, and Ph.D., 1967, Swiss Federal Institute of Technology; Bell Laboratories, 1969–1978. Mr. Mueller was a supervisor in the Data Communcations Laboratory. He has worked on a variety of problems in coding, modulation, signal processing and echo cancellation for high-speed data communication. During 1972–73 he was on leave at the Swiss Federal Institute of Technology where he lectured in information theory and was a member of the executive body of the European Informatics Networks. He is now with Gretag Ltd. in Switzerland. Senior Member IEEE.

Arun N. Netravali, B. Tech. (Honors), 1967, Indian Institute of Technology, Bombay, India; M.S., 1969, and Ph.D. (E.E), 1970, Rice University; Optimal Data Corporation, 1970–1972; Bell Laboratories, 1972–. Mr. Netravali has worked on problems related to filtering, guidance, and control of the space shuttle. At Bell Laboratories, he has worked on various aspects of signal processing, and is presently Head of the Visual Communication Research Department. He is also an adjunct professor of Electrical Engineering at Rutgers University. Member, Tau Beta Pi, Sigma Xi; Senior Member, IEEE.

Carolyn E. Schmidt, B.S. (Mathematics), 1974, Lafayette College; Bell Laboratories, 1974—. Miss Schmidt is a member of the Acoustic Research Department and is currently involved in work on speech communications. Member, Phi Beta Kappa.

Paul W. Shumate, Jr., B.S. (physics), 1963, College of William and Mary; Ph.D. (physics), 1968, University of Virginia; Bell Laboratories, 1969—. Mr. Shumate's first assignments at Bell Laboratories included research on the physical properties of magnetic bubble materials and magnetic bubble memory devices. He transferred to the Integrated Circuit Marketing and Applications Department in 1973, where he studied memory applications for integrated circuits. In 1975 he became Supervisor in the Lightwave Devices and Subsystems Department, where he directs the design and packaging of gallium-arsenide laser transmitters for use in future lightwave communications systems. Member, American Physical Society, Phi Beta Kappa, Sigma Xi, IEEE.

Raymond Steele, B.Sc. (E.E.), 1959, University of Durham, England; Ph.D., 1975, Loughborough University of Technology, England; Bell Laboratories, 1979—. Mr. Steele was a lecturer at the Royal Naval College, Greenwich, London from 1965 to 1968 when he became senior lecturer at Loughborough University of Technology. He has been engaged in source encoding of speech and picture signals and is the author of a book, *Delta Modulation Systems.* He was a consultant to the Acoustics Research Department at Bell Laboratories in the summers of 1975, 1977, and 1978, and is now a member of the Communications Methods Research Department.

John Stuller, B.S.E.E., 1963, Massachusetts Institute of Technology; M.S.E.E.; 1967, University of Southern California; Ph.D., 1971,

University of Connecticut; Northrop Nortronics Corp., 1963–1965; TRW Systems Group, 1965–1968; Perkin Elmer Corp. 1970–1971; Department of Electrical Engineering, University of New Brunswick, Fredericton, New Brunswick, Canada, 1971–1974; Bell Laboratories, 1977–1979. At Bell Laboratories, Mr. Stuller was engaged in analytical and simulation studies of both intraframe and interframe video coders. His primary area of interest is in the statistical theory of communications and its application.