Contributors to This Issue

Jacques A. Arnaud, Dipl. Ing., 1953, Ecole Supérieure d'Electricité, Paris, France; Docteur Ing., 1963, University of Paris; Docteur es Science, 1972, University of Paris; Assistant at E.S.E., 1953–1955; CSF., Centre de Recherche de Corbeville, Orsay, France, 1955–1966; Warnecke Elec. Tubes, Des Plaines, Illinois, 1966–1967; Bell Laboratories, 1967—. At CSF., Mr. Arnaud was engaged in research on high-power traveling-wave tubes and supervised a group working on noise generators. He is currently a supervisor studying microwave quasioptical devices and the theory of optical wave propagation. Senior Member, IEEE; Member, Optical Society of America.

Marie T. Dolan, B.A., 1954, Montclair State Teachers College; M.S., 1966, Stevens Institute of Technology; Bell Laboratories, 1954—. Ms. Dolan has been a programmer in general mathematical research and in recent years has been concerned with computerized design of digital filters. Member, Kappa Mu Epsilon.

Stanley B. Gershwin, B.S. (Engineering Mathematics), 1966, Columbia University; M.A., 1967, and Ph.D. (Applied Mathematics), 1971, Harvard University; Bell Laboratories, 1970–1971. While at Bell Laboratories, Mr. Gershwin worked on various traffic aspects of the Subscriber Loop Multiplier. Member, IEEE, SIAM, Tau Beta Pi.

Jeremiah F. Hayes, B.E.E., 1956, Manhattan College; M.S., 1961, New York University; Ph.D., 1966, University of California, Berkeley; Faculty Member, Purdue University, 1966–1969; Bell Laboratories, 1969—. Mr. Hayes' current research interests are in the area of signal processing. Member, IEEE, Sigma Xi, Eta Kappa Nu.

Otto Herrmann, Dipl.-Ing. (Electrical Engineering), 1956, and Dr.-Ing. (Electrical Engineering), 1965, University of Aachen, Germany; venia legendi, 1971, University of Erlangen, Nuremberg, Germany. Mr. Herrmann has worked on problems concerning approximation theory as applied to analog and digital filter design. From 1959

to 1971 he was a Teaching and Research Assistant at the University of Aachen, University of Karlsruhe, and University of Erlangen. He was at Bell Laboratories during the summer of 1972 on leave from the Technical Faculty at the University of Erlangen. Presently, he teaches courses in communications, analog computation, and digital signal processing at the University of Erlangen. Member, Nachrichtentechnische Gesellschaft.

James F. Kaiser, E.E., 1952, University of Cincinnati, S.M., 1954, and Sc.D., 1959, Massachusetts Institute of Technology; faculty of the Massachusetts Institute of Technology, 1956–1960; Bell Laboratories, 1959—. Mr. Kaiser has been concerned with problems of data processing, digital filter design, system simulation, and computer graphics. He is coauthor of two books, Analytical Design of Linear Feedback Controls with G. C. Newton and L. A. Gould and System Analysis by Digital Computer with F. Kuo. Fellow, IEEE; member, Association for Computing Machinery, Society for Industrial and Applied Mathematics, Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

Richard V. Laue, B.A. (Mathematics), 1953, Hofstra College; M.S., 1958, and Ph.D. (Applied and Mathematical Statistics), 1966, Rutgers, The State University; Bell Laboratories, 1959—. From 1959 to 1964, Mr. Laue was involved in statistical studies associated with the manufacture and selection of electronic components. Since then, he has been primarily concerned with various statistical aspects of telephone traffic systems. Member, American Statistical Association, Institute of Mathematical Statistics, Sigma Xi.

Dietrich Marcuse, Diplom Vorpruefung, 1952, Dipl. Phys., 1954, Berlin Free University; D.E.E., 1962, Technische Hochschule, Karlsruhe, Germany; Siemens and Halske (Germany), 1954–57; Bell Laboratories, 1957—. At Siemens and Halske, Mr. Marcuse was engaged in transmission research, studying coaxial cable and circular waveguide transmission. At Bell Laboratories, he has been engaged in studies of circular electric waveguides and work on gaseous masers. He spent one year (1966–1967) on leave of absence from Bell Laboratories at the University of Utah. He is presently working on the transmission aspect of a light communications system. Mr. Marcuse is the author of three books. Fellow, IEEE; member, Optical Society of America.

Stewart E. Miller, S.B. and S.M. (Electrical Engineering), 1941, Massachusetts Institute of Technology; Bell Laboratories, 1941—. Mr. Miller was concerned with microwave radar design from 1941 to 1945. At the conclusion of World War II he resumed design work on coaxial-cable carrier systems until 1949, when he joined the Radio Research Department. His work was concerned with circular electric waveguide communication, microwave ferrite devices, and other components for microwave radio systems. As Director, Guided Wave Research, he headed a group which did work leading to a current millimeter-wave system development. More recently, his interest and that of the Guided Wave Research group has shifted to the optical region and to exploration of the use of lasers and associated devices in transmission. Member, Tau Beta Pi and Eta Kappa Nu; associate member, Sigma Xi; Fellow of IEEE; and member, National Academy of Engineering. Recipient, 1972 IEEE Morris N. Liebmann Award.

Lawrence R. Rabiner, S.B., S.M., 1964, Ph.D., 1967, Massachusetts Institute of Technology; Bell Laboratories, 1962—. Mr. Rabiner has worked on digital circuitry, military communications problems, and problems in binaural hearing. Presently he is engaged in research on speech communications and digital signal processing techniques. Member, Eta Kappa Nu, Sigma Xi, Tau Beta Pi; Fellow, Acoustical Society of America; Chairman of the IEEE G-AU Technical Committee on Digital Signal Processing; vice-president of the G-AU AdCom, associate editor of the G-AU Transactions; member of the technical committees on speech communication of both the IEEE and Acoustical Society.

Ronald W. Schafer, B.S. (E.E.), 1961, and M.S. (E.E.), 1962, University of Nebraska; Ph.D., 1968, Massachusetts Institute of Technology; Bell Laboratories, 1968—. Mr. Schafer has been engaged in research on digital waveform processing techniques and speech communication. Member, Phi Eta Sigma, Eta Kappa Nu, Sigma Xi, IEEE, Acoustical Society of America, and the IEEE G-AU Technical Committees on Digital Signal Processing and Speech Communication.

Eric Wolman, A.B., 1953, A.M., 1954, and Ph.D. (Applied Mathematics), 1957, Harvard University; Bell Laboratories, 1957—. Mr. Wolman has worked on various aspects of traffic flow in communication

systems, and now heads the Network Analysis Department. He is a member of the Evaluation Panel for the Fire Technology Division, National Bureau of Standards, and served as visiting lecturer on applied mathematics at Harvard in 1964. Member, AMS, IEEE, ORSA, Phi Beta Kappa, Sigma Xi, SIAM; Fellow, AAAS.

H. Zucker, Dipl. Ing., 1950, Technische Hochschule, Munich, Germany; M.S.E.E., 1954, Ph.D., 1959, Illinois Institute of Technology; Bell Laboratories, 1964—. Mr. Zucker was concerned with satellite communication antennas, optical resonators, and problems in the areas of electromagnetic theory and optics. More recently, he has been engaged in analytical studies related to transmission systems. Member, IEEE, Commission 6 of URSI, Eta Kappa Nu, Sigma Xi.