

Contributors to This Issue

Kenneth Bullington, B.S., 1936, University of New Mexico; S.M., 1937, Massachusetts Institute of Technology; Bell Laboratories, 1937—. Mr. Bullington has worked on transmission engineering problems on wire, radio, and submarine cable systems. He is now Radio Consultant. In 1956 he received the Morris Liebmann Memorial Prize of the Institute of Radio Engineers and the Franklin Institute's Stuart Ballantine Medal for contributions in tropospheric transmission and its application to practical communications systems. Fellow, IEEE. Member, Phi Kappa Phi, Sigma Tau.

Allen H. Cherin, B.E.E., 1961, City College of New York; M.S.E.E., 1965, University of Vermont; Ph.D., 1971, University of Pennsylvania; Bell Laboratories, 1965—. Mr. Cherin is engaged in studies associated with the characterization, splicing, and packaging of optical fibers. Member, IEEE, OSA.

O. E. DeLange, B.S. (Electrical Engineering), 1930, University of Utah; M.A. (Physics), 1937, Columbia University; Bell Laboratories, 1930–1971. Mr. DeLange was involved in studies of frequency modulation and ultrahigh frequency research, and in the development and design of naval radar. He has studied broadband pulse systems with emphasis on pulse code modulation, and was responsible for the satellite tracking radar for the Echo I experiment. More recently he was involved in studies of optical and millimeter-wave systems. Fellow, IEEE.

A. F. Dietrich, Monmouth College, 1942–1944; Bell Laboratories, 1942–1973. Mr. Dietrich worked on experimental studies on broadband, baseband, and microwave systems, including experimental research on both FM and PCM ultrashort pulse terminals and repeaters for microwave radio and waveguide applications. He also engaged in experimental studies of light transmission systems.

D. C. Hogg, B.Sc., 1949, University of Western Ontario; M.Sc., 1950, Ph.D., 1953, McGill University; Bell Laboratories, 1953—. Mr. Hogg's work has included studies of artificial dielectrics for microwaves,

diffraction of microwaves, and over-the-horizon, millimeter wave, and optical propagation and antenna research. Fellow, IEEE, Union de Radio Scientifique Internationale.

Tien Pei Lee, B.S.E.E., 1957, National Taiwan University, Taiwan, China; M.S.E.E., 1959, Ohio State University; Ph.D., 1963, Stanford University; Bell Laboratories, 1963—. Mr. Lee participated in the research and development of solid-state microwave diodes and photodiodes. He has worked on millimeter-wave IMPATT diodes, varactor diodes, and Schottky barrier diodes for multipliers and mixers. He is presently engaged in semiconductor injection lasers and LED's for optical fiber communication systems. Member, Sigma Xi, IEEE.

Dietrich Marcuse, Diplom Vorpruefung, 1952, Dipl. Phys., 1954, Berlin Free University; D.E.E., 1962, Technische Hochschule, Karlsruhe, Germany; Siemens and Halske (Germany), 1954-1957; Bell Laboratories, 1957—. At Siemens and Halske, Mr. Marcuse was engaged in transmission research and 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.

George Marr, B.A., 1963, Hope College; M.S., 1965, Miami University; Ph.D. (Physics), 1968, The Ohio State University; Bell Laboratories, 1968-1974. While at Bell Laboratories, Mr. Marr worked on the design and development of custom and catalog MOS integrated circuits, ion-implanted depletion-mode devices, BIGFET output drivers, and CMOS RAM design. Member, APS, IEEE.

J. E. Mazo, B.S. (Physics), 1958, Massachusetts Institute of Technology; M.S. (Physics), 1960, and Ph.D. (Physics), 1963, Syracuse University; Research Associate, Department of Physics, University of Indiana, 1963-1964; Bell Laboratories, 1964—. At the University of Indiana, Mr. Mazo worked on studies of scattering theory. At Bell Laboratories, he has been concerned with problems in data transmission and is now working in the Mathematical Research Center. Member, American Physical Society, IEEE.

Gilbert L. Mowery, S.B., 1965, Massachusetts Institute of Technology; M.S., 1966, and Ph.D. (E.E.), 1971, Carnegie-Mellon University; Bell Laboratories, 1970—. Mr. Mowery has worked on the design and development of custom and catalog MOS integrated circuits, ion-implanted depletion-mode devices, and **BIGFET** output drivers, and is presently engaged in the design of custom MOS LSI circuits. Member, IEEE.

Kurt H. Mueller, E.E. Diploma, 1961, Ph.D., 1967, Swiss Federal Institute of Technology; Bell Laboratories, 1969—. Mr. Mueller has worked on various problems in the fields of high-speed data communication. During 1972-1973, he was on leave of absence at the Swiss Federal Institute of Technology, and was a member of the Executive Body of the European Informatics Network. He is presently involved in digital signal processing techniques for data transmission.

Elizabeth J. Murphy, B.S., 1964, Spring Hill College; M.S., 1966, Auburn University; Bell Laboratories, 1967—. Ms. Murphy has worked on computation and numerical analysis associated with the characterization of transmission lines and optical fibers. Member, ACM.

S. D. Personick, B.E.E., 1967, City College of New York; S. M., 1968, E.E., 1969, and Sc.D., 1969, Massachusetts Institute of Technology; Bell Laboratories, 1967—. Mr. Personick is engaged in studies of optical communication systems.

Herman M. Presby, B.A., 1962, and Ph.D., 1966, Yeshiva University; Research Scientist, Columbia University, 1966-1968; Asst. Prof. Physics, Belfer Graduate School of Science, Yeshiva University, 1968-1972; Bell Laboratories, 1972—. Mr. Presby is engaged in studies on the properties of optical fiber waveguides.

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; President, IEEE G-ASSP Ad Com; member, G-ASSP Technical Committee on Digital Signal Processing, G-ASSP

Technical Committee on Speech Communication, IEEE Proceedings Editorial Board, Technical Committee on Speech Communication of the Acoustical Society; former Associate Editor of the G-ASSP Transactions.

Stephen O. Rice, B.S. (Electrical Engineering), 1929, and D.Sc. (Hon.), 1961, Oregon State College; Bell Laboratories, 1930—1972. Mr. Rice has been concerned with theoretical problems related to electromagnetic wave propagation, signal modulation, and noise. At the time of his retirement from Bell Laboratories, he was head of the Communications Analysis Research Department. In 1965, Mr. Rice received the Mervin J. Kelly Award from the Institute of Electrical and Electronic Engineers. Fellow, IEEE.

Marvin R. Sambur, B.E.E., 1968, City College of New York; S.M., 1969, Ph.D., 1972, Massachusetts Institute of Technology; Bell Laboratories, 1968—. At present, Mr. Sambur is engaged in automatic speaker verification and automatic speech recognition research in the Acoustic Research group at Bell Laboratories. Member, Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

Arvids Vigants, B.E.E., 1956, City College of New York; M.S. (E.E.), 1957, and Eng. Sc.D. (E.E.), 1962, Columbia University; Bell Laboratories, 1962—. Mr. Vigants has worked on various electromagnetic wave propagation topics and is currently working on problems in line-of-sight microwave propagation and microwave radio systems. Member, Eta Kappa Nu, Tau Beta Pi, Sigma Xi, Commission 2 of URSI, IEEE, AAAS.