

Contributors to This Issue

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Herbert Y. Chang, B.S.E.E., 1960, M.S.E.E., 1962, and Ph.D., E.E., 1964, University of Illinois; Bell Laboratories, 1964—. Mr. Chang has worked primarily on maintenance techniques for electronic switching systems, design techniques for self-checking processors, digital-fault-simulation methods, and computer-aided-design techniques. He currently supervises a group responsible for the development of advanced design automation systems. Member, Eta Kappa Nu, Tau Beta Pi, Pi Mu Epsilon, Sigma Xi; Senior Member, IEEE.

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Ta-Shing Chu, B.S., 1955, The National Taiwan University; M.S., 1957, and Ph.D., 1960, Ohio State University; Bell Laboratories, 1963—. Mr. Chu has been engaged in research on tropospheric wave propagation and microwave antennas. He is currently concerned with electromagnetic problems in the area of satellite communications. Member, IEEE, Commission II of URSI, Sigma Xi, Pi Mu Epsilon.

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John J. Kulzer, B.S.E.E., 1964, M.S.E.E., 1965, and Ph.D., 1969, Illinois Institute of Technology; Bell Laboratories, 1969—. Mr. Kulzer has worked on diagnostic design for large digital circuits and has car-

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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.

James McKenna, B.Sc. (Mathematics), 1951, Massachusetts Institute of Technology; Ph.D. (Mathematics), 1961, Princeton University; Bell Laboratories, 1960—. Mr. McKenna has done research in quantum mechanics, electromagnetic theory, and statistical mechanics. He has recently been engaged in the study of nonlinear partial differential equations that arise in solid-state device work and in the theory of stochastic differential equations.

Edward A. Ohm, B.S. (E.E.), 1950, M.S. (E.E.), 1951, and Ph.D. (E.E.), 1953, University of Wisconsin; Bell Laboratories, 1953—. Mr. Ohm has worked on low-loss waveguide components and two experiments demonstrating the feasibility of low-noise satellite communication systems: the measurement of background sky temperature and the reception of very small signals from a passive satellite (Echo I). He is currently working on a dual-polarized polarization-tracking feed for the earth-station antennas of the 4- and 6-GHz domestic satellite system.

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George W. Smith, Jr., B.E.E., 1952, North Carolina State College; M.S.E.E., 1958, Stevens Institute of Technology; M.A., 1961, Princeton University; Ph.D., 1963, Princeton University; Bell Laboratories, 1952—. Mr. Smith's early work included military missile projects and military telephone switching systems. He later worked on the development of Bell System message switching systems and automated telephone directory assistance service. Since 1971, he has been head of the Design Automation Department which is engaged in providing computer programs for aiding the design of electronic switching systems, automatic drafting, automatic logic verification, and automatic trouble location. Member, IEEE, Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

R. H. Walden, B.E.S., 1962, M.E.E., 1963, and Ph.D., 1966, New York University; Bell Laboratories, 1966—. Mr. Walden's initial activities in the Semiconductor Device Laboratory were concerned with switching properties of VO_2 , followed by work on the conduction properties of Al_2O_3 films. He was also involved in a study of the properties of charge-transfer devices and is presently working on the design of integrated circuits using CMOS technology.

Robert B. Walford, B.S.E.E., 1961, Illinois Institute of Technology; M.S.E.E., 1963, and Ph.D., E.E., 1967, University of Southern California; Bell Laboratories, 1967—. Mr. Walford has worked on a variety of projects including real-time information processing, computer-aided design, and ESS software support. He is currently supervisor of a group working on new methods of software development. Member, NSPE, IEEE, Eta Kappa Nu, Tau Beta Pi.