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 highpower traveling-wave tubes and supervised a group working on noise generators. He is a supervisor, currently studying microwave quasioptical devices and the theory of optical wave propagation. Senior Member, IEEE; Member, Optical Society of America.

J. E. Goell, B.E.E., 1962, M.S., 1963, and Ph.D. (E.E.), 1965, Cornell University; Bell Laboratories, 1965–1974. While at Cornell, Mr. Goell was a teaching assistant and held the Sloan Fellowship and the National Science Cooperative Fellowship. At Bell Laboratories, he worked on solid-state repeaters for millimeter wave communication systems and optical integrated circuits, and repeaters for optical fiber communication systems. Member, Tau Beta Pi, Eta Kappa Nu, Sigma Xi, Phi Kappa Phi, IEEE.

Joel Goldman, B.E.E., 1965, The Cooper Union; M.S., 1967, and Ph.D. (E.E.), 1970, Cornell University; Bell Laboratories, 1970—. Mr. Goldman has been concerned with the analysis of the effects of interference on various communications systems and with the foundations of estimation and probability theory. He is presently engaged in the statistical modeling of ocean noise. Member, Institute of Mathematical Statistics, Society for Industrial and Applied Mathematics, IEEE, Eta Kappa Nu, Tau Beta Pi.

Chao-Kai Liu, B.S. (E.E.), 1967, National Taiwan University; M.S. (E.E.), 1969, University of Waterloo, Ontario; Ph.D. (E.E.), 1972, University of Illinois; Bell Laboratories, 1972—. Mr. Liu has been doing exploratory network design and common control studies for customer switching systems. He is presently working on exploratory solid-state electronic switching systems. Member, IEEE.

Enrique A. J. Marcatili, Aeronautical Engineer, 1947, and E. E., 1948, University of Córdoba (Argentina); research staff, University of Córdoba, 1947–54; Bell Laboratories, 1954—. Mr Marcatili has been engaged in theory and design of filters in multimode waveguides and in waveguide systems research. More recently he has concentrated on the study of optical transmission media and circuitry for long-distance communication and for integrated optics. Fellow, IEEE.

Dietrich Marcuse, Diplom Vorpruefung, 1952, Dipl. Phys., 1954, Berlin Free University; D.E.E., 1962, Technische Hochschule, Karlsruhe, Germany; Siemens and Halske (Germany), 1954–57; 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.

V. Ramaswamy, B.Sc. (Physics), 1957, Madras University, India; D.M.I.T. (Electronics), 1960, Madras Institute of Technology, Chromepet, Madras, India; M.S., 1962, and Ph.D., 1969, Northwestern University; Zenith Radio Corporation, 1962–1965; Bell Laboratories, 1969—. Mr. Ramaswamy's work has included microwave components, diode parametric amplifiers, and wave propagation in semiconductor plasmas. At Bell Laboratories, he is engaged in research related to thin film optical waveguides and devices. Member, Sigma Xi, IEEE.

F. K. Reinhart, Dipl. El. Eng., 1958, Dr. Sc. Techn., 1962, Swiss Federal Institute of Technology, Zurich, Switzerland; Bell Laboratories, 1963—. Mr. Reinhart has been engaged in device feasibility studies. Among his special interests are guided optical wave interactions in semiconductors, light modulation, and injection lasers.

Carlo H. Séquin, Ph.D. (Physics), 1969, University of Basel, Switzerland; Bell Laboratories, 1970—. Since joining Bell Laboratories, Mr. Séquin has been engaged in the design and investigation of charge-coupled image sensors. Member, Swiss Physical Society, American Physical Society, IEEE.

Tse Lin Wang, B.S.E.E., 1964, National Taiwan University; M.S., 1969, and Ph.D., 1970, University of South Carolina; Bell Laboratories, 1970—. Mr. Wang has been doing exploratory network design and common control studies for customer switching systems. He is presently working on exploratory key telephone systems. Member, IEEE, Eta Kappa Nu.

Lynn O. Wilson, A.B. (Physics), 1965, Oberlin College; Ph.D. (Applied Mathematics), 1970, University of Wisconsin; Bell Laboratories, 1970—. Ms. Wilson has pursued research in various areas of applied mathematics. She has worked on problems concerning *Picture-phone* demand, electromagnetic theory, elastic surface waves, dielectric waveguides, and operations research. Member, Sigma Xi, American Physical Society, SIAM.

