

Contributors to This Issue

D. B. ARMSTRONG, B.A., 1940, University of Toronto; M.S., 1951, and Sc.D., 1955, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1954—. He has been engaged in research in switching problems, which have included simulation and economic studies of telephone systems, studies of central office systems and reliability studies of digital systems. Member Sigma Xi.

D. W. BODLE, B.S. in E.E., 1937, New York University; Bell Telephone Laboratories, 1935—. He has been concerned with problems of electric shock and the protection of communication facilities from foreign potentials. This has included field investigations of lightning behavior, design of surge measuring devices and laboratory surge testing of apparatus. Member A.I.E.E.

G. D. BOYD, B.S., 1954, M.S., 1955, and Ph.D., 1959, California Institute of Technology; Bell Telephone Laboratories, 1959—. He is engaged in optical maser research.

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A. GARDNER FOX, S.B., 1934, and S.M., 1935, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1936—. His early work was in development of mobile radio transmitters, early radar development and general waveguide research. Since 1944 he has been engaged in design of radio frequency amplifiers and in research on millimeter waves. He heads a group specializing in microwave physics. Fellow I.R.E.

JAMES P. GORDON, B.S., 1949, Massachusetts Institute of Technology, M.A., 1951, and Ph.D., 1955, Columbia University; Bell Telephone Laboratories, 1955—. His research in quantum electronics has involved work on molecular beam masers, paramagnetic resonance and solid state masers. Member American Association for the Advancement of Science, American Physical Society, Sigma Xi.

PHILIP A. GRESH, B.S.E.E., 1956, Carnegie Institute of Technology; Bell Telephone Laboratories, 1956—. His work in Systems Engineering has included statistical and economic optimization studies of outside plant facilities. Member Eta Kappa Nu, Phi Kappa Phi, Tau Beta Pi.

TINGYE LI, B.Sc., 1953, University of Witwatersrand (South Africa); M.S., 1955, and Ph.D., 1958, Northwestern University; Bell Telephone Laboratories, 1957—. He has been engaged in studies of microwave antennas and microwave propagation. Recently he has been primarily concerned with work on optical masers. Member I.R.E., Eta Kappa Nu, Sigma Xi.

H. C. MARTEL, B.S., 1949, and Ph.D., 1956, California Institute of Technology; M.S., 1950, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1959-60; associate professor of electrical engineering, California Institute of Technology, 1953—. While at Bell Laboratories during a year's leave of absence from Cal Tech, Mr. Martel was engaged in visual and acoustics research related to signal coding and detection. Member I.R.E., Sigma Xi, Tau Beta Pi.

MAX V. MATHEWS, B.S., 1950, California Institute of Technology; M.S., 1952, and Sc.D., 1954, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1955—. He has specialized in acoustics research in speech transmission and has been especially concerned with simulating speech experiments on a digital computer. Member Acoustical Society of America, I.R.E., Sigma Xi.

R. L. PEEK, JR., A.B., 1921, Columbia College; Met.E., 1923, Columbia School of Mines; Bell Telephone Laboratories, 1924—. His early work was in materials testing. In 1936 he turned to apparatus development involving coin collectors, electromagnets, relays and switches. During the war he was engaged in military work and after the war in wire-spring relay development. Since 1951 he has been in charge of a group studying new electromagnetic devices. Member A.I.E.E.

D. K. RAY-CHAUDHURI, B.Sc., 1953, Presidency College, University of Calcutta (India); M.Sc., 1955, University of Calcutta; Ph.D., 1959, University of North Carolina; instructor in statistics, Case Institute of Technology, 1959-60; Bell Telephone Laboratories, summer, 1960; visiting assistant professor of statistics, University of North Carolina, 1960—. He has been engaged in research on problems of constructing experimental designs in statistics, sampling theory and error-correcting codes. Member Institute of Mathematical Statistics.

ERLING D. SUNDE, Dipl.Ing., 1926, Technische Hochschule, Darmstadt, Germany; American Telephone & Telegraph Co., 1927-34; Bell Telephone Laboratories, 1934—. He has made theoretical and experimental studies of inductive interference from railway and power systems, lightning protection of the telephone plant, and fundamental transmission studies in connection with the use of pulse modulation systems. Author of *Earth Conduction Effects in Transmission Systems*, a Bell Laboratories Series book. Senior member I.R.E.; member American Association for the Advancement of Science, A.I.E.E., American Mathematical Society.

HANS-GEORG UNGER, Dipl. Ing., 1951 and Dr. Ing., 1954, Technische Hochschule, Braunschweig (Germany); Siemens and Halske (Germany), 1951-55; Bell Telephone Laboratories, 1956—. His work at Bell Laboratories has been in research in waveguides, especially circular electric wave transmission. He is now on leave of absence from Bell Laboratories as professor of electrical engineering at the Technische Hochschule in Braunschweig. Senior member I.R.E.; member German Communication Engineering Society.

