

Contributors to This Issue

PAUL T. BRADY, B.E.E., 1958, Rensselaer Polytechnic Institute; M.S.E.E., 1960, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1961—. His work in human factors engineering has been concerned with studies of speech and voice-operated devices, especially as applied to satellite communication circuits.

W. JAMES COLE, B.S.E.E., 1963, Lehigh University; M.S.E.E., 1964, Massachusetts Institute of Technology; Bell Telephone Laboratories, 1963—. He has been working on the simulation and design of control systems for nonorthogonal antenna mounts. Member, IEEE, Tau Beta Pi, Eta Kappa Nu.

J. A. COLLINSON, A.B., 1950, Oberlin College; M.S., 1951, Yale University; Ph.D., 1954, Yale University; Bell Telephone Laboratories, 1962—. He has worked on gas lasers and placed emphasis on frequency characteristics and atmospheric transmission of laser beams. Member, American Physical Society, Sigma Xi, Phi Beta Kappa.

JOHN S. COOK, B.S., M.S., in E.E., 1952, Ohio State University; Bell Telephone Laboratories, 1952—. He has engaged in research on traveling wave tubes, electron focusing, coupled systems, parametric amplification, and more recently in phased-array radar study. He is now head of the antenna research department engaged in microwave antenna and transmission research and development, and laser research. Senior member, IEEE, Sigma Xi, Eta Kappa Nu, Tau Beta Pi.

KEVIN N. COYNE, B.S.M.E., 1959, Columbia University; M.S. (Engineering Mechanics) 1961, New York University; Bell Telephone Laboratories, 1959—. He has been engaged in the design and development of electro-optical equipment and has worked on structural design and analysis and erection of the Andover horn-reflector antenna. Mr. Coyne also has worked on the development of a precise digitally controlled mount for infrared radiometry and on mathematical studies for submarine detection systems. He is currently engaged

in design studies for future satellite communications antennas. Member, Tau Beta Pi.

W. J. DENKMANN, B.S.M.E., 1961, M.S., 1963, State University of Iowa; Bell Telephone Laboratories, 1963—. Mr. Denkmann is concerned with the analysis of structures, particularly antennas, and with the computer applications of structural analysis techniques. Member, Tau Beta Pi, Pi Tau Sigma, ASME, ACM, SIAM.

EDWARD M. ELAM, B.S.E.E., 1952, University of California, Western Electric Company, 1952–1962; Bell Telephone Laboratories, 1962—. He has worked on the TELSTAR satellite autotrack systems at Andover, Maine, and Pleumeur-Bodou, France. He is presently engaged in the development of radar and communications antennas. Member, IEEE.

K. E. FULTZ, B.S.E.E., 1948, M.S.E.E., 1950, Kansas State University; Bell Telephone Laboratories, 1950—. He was first concerned with systems engineering studies of Bell System transmission systems and with studies of the Distant Early Warning line. He later worked on systems engineering of T1 carrier and in presently, Head, Pulse Transmission Studies Department. Member, IEEE, Tau Beta Pi, Eta Kappa Nu, Phi Kappa Phi.

FRANZ TH. GEYLING, B.S. (Civil Eng.), 1950, M.S. (Civil Eng.), 1951, and Ph.D. (Eng. Mechanics), 1954, Stanford University; Bell Telephone Laboratories, 1954—. He has worked in areas involving photoelastic stress analysis, shell theory and satellite and space vehicle ballistics. He has written computer programs for the digital simulation of space flight missions. His other areas of responsibility include blast studies, the analysis of large antenna structures, and hypervelocity impact studies. Member, AIAA, ASME, International Association for Bridge and Structural Engineering, Tau Beta Pi.

RICHARD A. GIBBY, B.S., 1949, M.S., 1950, University of Utah; Ph.D., 1955, Northwestern University; Bell Telephone Laboratories, 1955—. Engaged in data communication system analysis, he is presently in charge of a group concerned with this work. Member, IEEE, Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

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Laboratories, 1956—. Mr. Giger was first associated with the TH microwave relay system as a circuit designer and later as a leader of a group engaged in the development of the TH protection switching system. Later he was active in the field of satellite communications especially low noise receivers, antennas and waveguide circuits for ground stations. He is now supervisor of a group working on an all solid-state microwave radio system. Senior member, IEEE.

ELLIOTT R. NAGELBERG, B.E.E., 1959, City College of New York; M.E.E., 1961, New York University; Ph.D., 1964, California Institute of Technology; Bell Telephone Laboratories, 1964—. He has been concerned with problems involving microwave antennas and propagation. Member, IEEE, American Physical Society, Eta Kappa Nu, Sigma Xi.

WINSTON L. NELSON, B.S., 1950, University of Utah; M.S., 1953, Ph.D., 1959, Columbia University; Bell Telephone Laboratories, 1960—. He has been involved with studies of satellite tracking control systems, satellite attitude control systems, weak-signal detection techniques employing feedback, and system optimization techniques. He presently supervises a group engaged in communication and control systems research. Member, IEEE, SIAM, Sigma Xi, Tau Beta Pi.

DIXON B. PENICK, B.S. in E.E., 1923, B.A. 1924, University of Texas; M.A. 1927, Columbia University; Western Electric Company, Engineering Department, 1924-25; Bell Telephone Laboratories, 1925—. After 12 years in the vacuum tube research area, he transferred to a carrier development group and has worked on C5 Carrier, 2B Pilot Channel, J2 Carrier, A2 Channel Bank, Carrier Program, L3 master-group, and P1 Carrier developments. In 1960 he was assigned to a PCM group and is now responsible for continuing development work on the T1 Carrier system. Member, Tau Beta Pi, senior member, IEEE.

DANIEL L. POPE, B.C.E., 1953, Ph.D. (Mechanics), 1961, Cornell University; Bell Telephone Laboratories, 1960—. He has been concerned with defensive missile system analysis, and participated in the early phases of orbital mechanics studies for communication satellites. More recently he has worked on array radar structural analysis, study of advanced techniques for large complex structures and structural optimization. He presently supervises the Analytical Mechanics De-

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ALFRED O. SCHWARZ, B.S.M.E., 1949, Lehigh University; Bell Telephone Laboratories, 1951—. He has worked on a variety of electro-mechanical devices associated with servo mechanisms, as well as a proximity fuze for mortars, and optical equipment for evaluating tracking performance of radar antennas. He performed engineering liaison work for the design and installation of the horn antennas at Andover, Maine and Pleumeur-Bodou, France for the TELSTAR satellite project. He is currently working on the development of a coin telephone set.

JOSHUA SHEFER, B.S., 1948, Technion, Israel Institute of Technology; Ph.D., 1956, London University; research fellow, Harvard University, 1960–1962; Bell Telephone Laboratories, 1962—. He has been engaged in studies of microwave propagation and antennas, particularly in relation to surface wave guiding structures. Senior member, IEEE, associate member, IEE (London), member, Sigma Xi.

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