Contributors to this Issue

Václav E. Beneš, A.B., 1950, Harvard College; M.A., Ph.D., 1953, Princeton University; Bell Telephone Laboratories, 1953—. Mr. Beneš has been engaged in mathematical research on stochastic processes, traffic theory and servomechanisms. In 1959–60 he was visiting lecturer in mathematics at Dartmouth College. Member American Mathematical Society, Association for Symbolic Logic, Institute of Mathematical Statistics, Mind Association, Phi Beta Kappa.

James L. Flanagan, B.S., 1948, Mississippi State University; S.M., 1950, and Sc.D., 1955, Massachusetts Institute of Technology; faculty, Mississippi State University, 1950–52; Air Force Cambridge Research Center, 1954–57; Bell Telephone Laboratories, 1957—. He has specialized in work on speech communication over narrow bandwidths, including studies of acoustical, physiological and psychological phenomena related to speech and speech perception. Fellow Acoustical Society of America; member I.R.E., Kappa Mu Epsilon, Sigma Xi, Tau Beta Pi.

L. E. Franks, B.S., 1952, Oregon State College; M.S., 1953, and Ph.D., 1957, Stanford University; Bell Telephone Laboratories, 1958—. He is engaged in analytical studies of techniques for improving the performance of data transmission networks. Member Sigma Xi.

E. N. Gilbert, B.S., 1943, Queens College; Ph.D., 1948, Massachusetts Institute of Technology; M.I.T. Radiation Laboratory, 1944–46; Bell Telephone Laboratories, 1948—. Mr. Gilbert has been engaged in studies of information theory and switching theory. Member American Mathematical Society.

Bela Julesz, Dipl. in Electrical Engineering, 1950, Budapest (Hungary) Technical University; Kandidat in Technical Sciences, 1956, Hungarian Academy of Sciences; Bell Telephone Laboratories, 1956—. He was first engaged in studies of systems for reducing television bandwidth. At present, Dr. Julesz is working in visual research, particularly on problems of depth perception and pattern recognition. Member A.A.A.S., I.R.E.

C. Y. Lee, B.E.E., 1947, Cornell University; M.S.E.E., 1949, and Ph.D., 1954, University of Washington; instructor in electrical engineering, University of Washington, 1948–51; Bell Telephone Laboratories, 1952—. Mr. Lee has been engaged in studies of mathematical problems arising from computers and digital systems. He was a visiting member of the Institute for Advanced Study in the School of Mathematics during the academic year 1957–58. Member American Mathematical Society, I.R.E., Eta Kappa Nu, Sigma Xi.

IRWIN W. SANDBERG, B.E.E., 1955, M.E.E., 1956, and D.E.E., 1958, Polytechnic Institute of Brooklyn; Bell Telephone Laboratories, 1958—. He has been concerned with analysis of military systems, particularly radar systems, and with synthethis and analysis of active and timevarying networks and linear array antennas. Member I.R.E., Eta Kappa Nu, Sigma Xi, Tau Beta Pi.

David Slepian, University of Michigan, 1941–43; M.A., 1947, and Ph.D., 1949, Harvard University; Bell Telephone Laboratories, 1950—. He has been engaged in mathematical research in communication theory, switching theory and theory of noise, and has been mathematical consultant on various Bell Laboratories projects. In 1958 and 1959 he was Visiting Mackay Professor of Electrical Engineering at the University of California at Berkeley. Member A.A.A.S., American Mathematical Society, Institute of Mathematical Statistics, I.R.E., Society for Industrial and Applied Mathematics, U.R.S.I. Commission 6.

A. W. Warner, B.A., 1940, University of Delaware; M.S., 1942, University of Maryland; instructor in physics, Lehigh University, 1941-42; Western Electric Co., 1942–43; Bell Telephone Laboratories, 1943—. Since joining the Bell System Mr. Warner has been continuously engaged in the development of high-frequency quartz crystal units. At present he is continuing the development of very stable crystal units and other solid state devices making use of crystalline quartz. Senior member I.R.E.

Frank A. Zupa, B.S. in E.E., 1922, Cooper Union; Western Electric Co. Engineering Dept., 1918–25; Bell Telephone Laboratories, 1925—. He was engaged in evaluation testing of materials and switching apparatus for about six years, and in design and development engineering work on practically all types of telephone relays for more than 30 years. During World War II he was in charge of the packaging design for production of the optical proximity fuse and in the evaluation testing of magnetic mine M11. At present he is in charge of a group engaged in new switch and relay design developments.