

Contributors to This Issue

SYED V. AHAMED, B.E., 1957, University of Mysore, India; M.E., 1958, Indian Institute of Science; Ph.D., 1962, University of Manchester, U. K.; Post-Doctoral Research Fellow, 1963, University of Delaware; Assistant Professor, 1964, University of Colorado; Bell Laboratories, 1966—. Mr. Ahamed was working in Computer Aided Engineering Analysis and Software Design at Whippany. Presently, he is investigating the applications of Algebraic Techniques for Domain Circuits.

WILLIAM T. BARNETT, B.S.E.E., 1958, Illinois Institute of Technology; M.E.E., 1960, New York University; Western Electric, 1953–1958; Bell Laboratories, 1958—. Mr. Barnett has worked on problems related to microwave radio relay systems. Since 1966, he has supervised a group concerned with propagation problems. Member, IEEE.

GLEN T. CHENEY, A. B., 1960, and M. S. (Physics), 1964, San Diego State College; Convair Astronautics, 1957–1960; General Atomic, 1960–1964; Bell Laboratories, 1964—. Before joining Bell Laboratories, Mr. Cheney was involved in applied research activities in the areas of thermal and thermionic properties of reactor materials and radiation-induced conductivity in plastic films. At Bell Laboratories, he has been concerned with the development of device and circuit technology for both bipolar and unipolar silicon integrated circuits. His current assignment is Supervisor, Digital IGFET Circuits Group.

J. D. DENMAN, Central State University; Western Electric Company, 1960—. Mr. Denman is a Planning Engineer at the Oklahoma City Works and has worked in quality assurance, industrial engineering, and product engineering. He is presently in Crossbar Equipment Assembly and Wiring Engineering where his responsibilities include solderless wrap control and cost reduction coordination. Member, IEEE, Society of Manufacturing Engineers, Institute for Certification of Engineering Technicians, Society for the Advancement of Management, American Radio Relay League, Oklahoma Industrial Arts Association.

MICHAEL J. FERGUSON, B.A.Sc., 1962, University of Toronto; M.S., 1963, California Institute of Technology; Ph.D., 1966, Stanford University. Mr. Ferguson is an Assistant Professor of Electrical Engineering at McGill University, Montreal, Canada. He spent the summer of 1970 in the Data Theory Department at Bell Laboratories where he did work in data transmission, coding, and communication networks.

JAMES L. FLANAGAN, B.S., 1948, Mississippi State University; S.M., 1950, and Sc.D., 1955, Massachusetts Institute of Technology; Faculty of Electrical Engineering, Mississippi State University, 1950-1952; Air Force Cambridge Research Center, 1954-1957; Bell Laboratories, 1957—. Mr. Flanagan has worked in speech and hearing research, computer simulation and digital encoding, and acoustics research. He is Head, Acoustics Research Department. Fellow, IEEE; Fellow, Acoustical Society of America; Tau Beta Pi; Sigma Xi; member of several government and professional society boards, including committees of the National Academy of Sciences and the National Academy of Engineering.

A. JAY GOLDSTEIN, B.S. (Physics), 1948, and M.A. (Mathematics), 1951, Pennsylvania State University; Ph.D. (Mathematics), 1955, Massachusetts Institute of Technology; mathematics faculty of Polytechnic Institute of Brooklyn, 1954-1957; Bell Laboratories, 1957—. Mr. Goldstein has worked on network analysis and synthesis, computer-oriented combinatoric algorithms, and interactive computing systems. He is now supervisor of the Mathematical Techniques Group.

LEON D. HARMON, B.S.E.E., 1956, New York University; Institute for Advanced Study, Princeton, N. J., 1950-1956; Bell Laboratories, 1956—. At the Institute for Advanced Study, Mr. Harmon was engaged in the research and development of high-speed digital computing systems. At Bell Laboratories, his work has included studies in visual pattern recognition by machines, sensory psychophysics, and information processing in the nervous system. His present research in the Systems Theory Research Department includes the analysis of neurophysiological systems using electronic neural analogs, and studies of automatic machine processing of visual and auditory patterns. Member, AAAS, IEEE, Society for Neuroscience.

ERNAM F. KING, E. E. T., 1963, Capital Radio Engineering Institute; Bell Laboratories, 1957—. Mr King has worked on the design and development of traveling-wave tubes, bipolar transistors, and IGFET integrated circuits. Member, IEEE.

ANN B. LESK, B.A. (Chemistry), 1968, Radcliffe College; Research Associate, Arthur D. Little, Inc., Cambridge, Mass., 1968–1969; Bell Laboratories, 1969—. Ms. Lesk has worked in the fields of computational linguistics and cancer chemotherapy. At Bell Laboratories, she is working on face recognition and digital picture-processing.

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, 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 where he wrote a book on quantum electronics. He is presently working on the transmission aspect of a light communications system. Member, IEEE, Optical Society of America.

GEORGE MARR, B. A., 1963, Hope College; M. S., 1965, Miami University; Ph.D. (Physics), 1968, The Ohio State University; Bell Laboratories, 1968—. Mr. Marr has worked on the design and development of IGFET and BIGFET integrated circuits. His recent work includes the improvement of IGFET integrated circuit performance by the incorporation of both bipolar transistors and ion-implanted, depletion-mode IGFETs in the same integrated circuit. Member, American Physical Society, IEEE.

HENRY E. MEADOWS, B.E.E., 1952, M.S., 1953, and Ph.D., 1959, Georgia Institute of Technology; Instructor in Electrical Engineering, Georgia Institute of Technology, 1955–1958; Bell Laboratories, 1959–1962; Professor of Electrical Engineering in the Department of Electrical Engineering and Computer Science, Columbia University, 1962—. During 1968–1969, Mr. Meadows was a Ford Foundation Resident in Engineering Practice at the Philco-Ford Corporation, Palo Alto, California. His main interests lie in systems engineering including controls and simulation. Member, IEEE, Sigma Xi.

ROBERT E. NICKELL, B.S., 1963, M.S., 1964, and Ph.D., 1967, (all in Engineering Science), University of California at Berkeley; Bell Laboratories, 1968—. Mr. Nickell has been assigned to both military and Bell System projects, involving such aspects as structural dynamics of ballistic missile interceptors, thermal shock of ceramic nozzles for continuous copper casting, and vibration-enhanced soil penetration. He is currently a supervisor in the Ocean System Planning Department and is on assigned teaching to Brown University, Providence, R. I., for the academic year 1971-1972. Member, Tau Beta Pi, Chi Epsilon, Sigma Xi, AAAS, Society of Rheology, AIAA, ASME, ASCE. He is currently serving on technical committees of ASME and ASCE.

EUGENE G. PARKS, A. E. E., 1958, Pennsylvania State University; Bell Laboratories, 1958—. Mr. Parks has been concerned with the development of process technologies for many types of silicon semiconductor devices. Recently, he has been responsible for the operation of the device development laboratory at the Allentown branch laboratory.

G. PERSKY, B.S.E.E., 1959, Rensselaer Polytechnic Institute; M.S.E.E., 1961, and Ph.D. (Physics), 1968, Polytechnic Institute of Brooklyn; Bell Laboratories, 1967—. Since 1967, Mr. Persky has worked on problems of high-field transport in semiconductor devices. Member, IEEE, American Physical Society, Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

LAWRENCE R. RABINER, S.B. and S.M., 1964, and Ph.D. (E.E.), 1967, Massachusetts Institute of Technology; Bell Laboratories, 1962-1964, 1967—. Mr. Rabiner has worked on digital circuitry, military communications problems, and problems in binaural hearing. Since 1967, he has been engaged in research on speech communication, signal analysis, digital filtering, and techniques for waveform processing. Member, Eta Kappa Nu, Sigma Xi, Tau Beta Pi, IEEE; Fellow, Acoustical Society of America. He is chairman of the IEEE G-AE Technical Committee on Digital Signal Processing, and member of the technical committees on speech communication of both the IEEE and the Acoustical Society.

HARVEY RUBIN, B.S., 1965, M.S.E.E., 1966, and Eng.Sc.D., 1970, Columbia University; Bell Laboratories, 1965–1968, 1970—. Mr. Rubin has participated in the development of test equipment for use in evaluating the performance of telephone communications systems. From 1966 to 1968 he was involved in software design for the TSPS system. Presently, as a member of the Exploratory Integrated Electronics Group, he is developing filters and equalizers which meet critical specifications. Member, IEEE, Sigma Xi, Tau Beta Pi, Eta Kappa Nu.

RONALD W. SCHAFER, B.S. (E.E.), 1961, and M.S. (E.E.), 1962, University of Nebraska; Ph.D., 1968, Massachusetts Institute of Technology; Bell Laboratories, 1968—. Mr. Schafer has been engaged in research on digital waveform processing techniques and speech communication. Member, Phi Eta Sigma, Eta Kappa Nu, Sigma Xi, IEEE, Acoustical Society of America, and the IEEE G-AE Technical Committees on Digital Signal Processing and Speech Communication.

WOLFGANG O. SCHLOSSER, Dr. Ing., 1964, Technische Hochschule, Darmstadt, Germany; Research Associate, Technische Hochschule, Braunschweig, Germany, 1963–1966; Bell Laboratories, 1966—. Mr. Schlosser's work has included the design of microwave IMPATT oscillators and the design of mm-wave phase switches and PIN diodes. He is now working on optical communication subsystems. Member, IEEE.

NEIL J. A. SLOANE, B.E.E., 1959, and B.A. (Hons.), 1960, University of Melbourne, Australia; Postmaster General's Department, Commonwealth of Australia, 1956–1961; M.S., 1964, and Ph.D., 1967, Cornell University; assistant professor of electrical engineering, Cornell University, 1967–1969; Bell Laboratories, 1969—. Mr. Sloane is engaged in research in coding theory, communication theory, and combinatorial mathematics. Member, IEEE, American Mathematical Society, Mathematical Association of America.

D. C. STICKLER, B.Sc., 1956, M.Sc., 1959, and Ph.D., 1964, The Ohio State University; Bell Laboratories, 1965—. Since joining Bell Laboratories, Mr. Stickler has studied propagation in underwater acoustics. The microphone analysis covered in his paper was completed while on an internship. Currently he is in the Ocean Physics Research Department. Member, Sigma Xi.

