

Contributors to This Issue

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MRS. JUDITH G. BRINSFIELD, B.S., technical writing, 1963, and B.S.E.E., 1964, Carnegie Mellon University; M.S., mathematics, 1967, Stevens Institute of Technology; Bell Telephone Laboratories, 1965—. Mrs. Brinsfield has been engaged in report writing on the Nike-X project, programming on machine aids projects and design and development of the Mask Shop Information System. She is presently supervisor of the Engineering Applications Group, working on a computer-based information system for a new integrated circuit mask-making facility and a computer system for the automatic generation of program flowcharts.

BARRET BROYDE, B.A. (magna cum laude), Yeshiva College, 1955; Ph.D. (Chemistry), Polytechnic Institute of Brooklyn, 1960; Western Electric Engineering Research Center, 1967—. Mr. Broyde was engaged originally in investigations on more sensitive electron beam recording media. He is now Research Leader of the Materials and Analysis and Characterization Organization where new methods, techniques and instruments are being developed. Member, American Chemical Society, The Chemical Society (London), The American Institute of Physics, IEEE, New York Academy of Science, AAAS.

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M. J. COWAN, B.S., 1955, University of Maryland; Ph.D. (Physics), 1959, Duke University; National Science Foundation Postdoctoral Fellow, 1960; Assistant Professor, Duke University, 1961; Bell Telephone Laboratories, 1962—. Mr. Cowan did research in the field of submillimeter wavelength microwave spectroscopy prior to joining Bell Laboratories. Since 1962, he has worked on parametric amplifiers, piezoelectric devices and integrated circuits. He is presently involved with the evaluation of mask-shop processes. Member, Phi Kappa Phi, Phi Beta Kappa, Sigma Xi.

PATRICK G. DOWD, B.A. (Math), 1957, St. Michael's College; Western Electric Company, 1957-1963; Bell Telephone Laboratories, 1963—. Mr. Dowd worked on the S.A.G.E. Air Defense System while at West-

ern Electric. Since joining Bell Telephone Laboratories, he has been involved in computer software development for such things as automated transformer design, automated miniature-wire spring-relay design and graphics-terminal development as well as the primary pattern generator. He is presently concerned with the development of graphical time sharing terminals.

J. W. ELEK, B.S.M.E., 1957, Case Institute of Technology; M.S. (engineering mechanics), 1961, Lehigh University; Bell Telephone Laboratories, 1958—. Mr. Elek worked on shock and vibration problems as well as on stress analysis and semiconductor device processing. He is Supervisor of a mechanical engineering group in the Materials and Process Technology Laboratory responsible for work on photolithographic masks for semiconductor and thin-film devices, with a strong emphasis on computer control of mask-making equipment. Member, Tau Beta Pi, Engineering Club of the Lehigh Valley.

ALLEN GERSHO, B.S., 1960, Massachusetts Institute of Technology; M.S., 1961, and Ph.D., 1963, Cornell University; Bell Telephone Laboratories, 1963—. During the 1966-67 academic year, Mr. Gersho was Assistant Professor of Electrical Engineering at the City University of New York. He has performed research in time varying and nonlinear signal processing, synchronization, adaptive filtering and the statistical approach to digital filter design.

DAVID J. GOODMAN, B.E.E., 1960, Rensselaer Polytechnic Institute; M.E.E., 1962, New York University; Ph.D., 1967, University of London; Bell Telephone Laboratories, 1960-62, 1967—. A member of the Systems Theory Research Department, Mr. Goodman has studied principles of digital signal processing including analog-to-digital conversion and the statistical approach to digital filter design. Member, IEEE, Eta Kappa Nu, Tau Beta Pi.

ARTHUR G. GROSS, B.E.E., 1956, M.S., 1959, and Ph.D., 1964, Rensselaer Polytechnic Institute; Bell Telephone Laboratories, 1964—. Mr. Gross has been mainly concerned with the development of computer aids for integrated circuit design and artwork generation. He is presently supervisor of the Computer Graphics Applications Group in the Computer Graphics Development Department. Member, Eta Kappa Nu, Tau Beta Pi, Sigma Xi, Association for Computing Machinery, SIAM, AAAS.

DONALD R. HERRIOTT, studied undergraduate physics at Duke University, optics at the University of Rochester and electrical engineering at Polytechnic Institute of Brooklyn; Bell Telephone Laboratories, 1956—. Mr. Herriott has worked on the optical design of the flying spot store for E.S.S., photoelectric lens evaluation, the development of the helium-neon laser and interferometry with and applications of lasers. He is currently Head of the Optical Device Department and is responsible for the development of new optical devices and systems. Fellow and director, Optical Society of America.

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ROBERT E. KERWIN, B.S., 1954, Boston College; M.S., 1958, Massachusetts Institute of Technology; Ph.D., 1964, University of Pittsburgh; Mellon Institute, 1958-1964; Bell Telephone Laboratories, 1964—. Mr. Kerwin worked in the field of polymer science at Mellon Institute and studied the structure of water at the University of Pittsburgh. At Bell Laboratories he is a member of the Photochemical Materials and Processes group and has been concerned with semiconductor device processing, silicon gate technology, photolithography, and

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JOSEPH P. LAICO, M.E., 1933, Brooklyn Polytechnic Institute; Bell Telephone Laboratories, 1929–1970. Mr. Laico specialized in mechanical design and development work, including work on various electron tubes from early amplifiers to magnetrons and klystrons. He also worked on traveling-wave tubes for radar, coaxial cable, radio relay, defense systems, and the *Telstar*[®] communications satellite project. Before retirement, Mr. Laico was Supervisor of a mechanical design group in the electron device laboratory. He has been granted 23 patents on electron devices.

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PETER D. PARRY, A.B., 1963, Hamilton College; M.A., 1965, and Ph.D., 1968, Princeton University; Western Electric Engineering Research Center, Princeton, New Jersey, 1968—. Mr. Parry has worked on the electron beam pattern generator with special emphasis on magnetic shielding and radiation effects. Member, Sigma Xi, American Physical Society.

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M. E. POULSEN, Bell Telephone Laboratories, 1939—. Mr. Poulsen was first involved in electron-tube development, primarily glass and glass-to-metal seal problems. He has worked on submarine cable tubes and devices, design of thermal controls for the Telstar® project, and high-powered radar traveling tube development. At present he is engaged in scanning devices for high-speed data transmission.

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