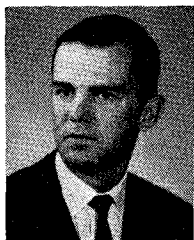


# Contributors

*Because IEEE membership records were not compiled at publication time, the membership progressions shown below are those of IRE.*



**Donald B. Armstrong** (S'59) was born in Minneapolis, Minn., on June 30, 1937. He received the B.S. and M.S.E.E. degrees from the University of Minnesota, Minneapolis, in 1959 and 1961, respectively.

He is presently a Research Fellow at the University of Minnesota, engaged in research in the electronic properties of semiconductors at microwave frequencies while working toward the Ph.D. degree.

Mr. Armstrong is a member of Eta Kappa Nu and Gamma Alpha.



**James B. Beyer** (M'61) was born in Horicon, Wis., on July 7, 1931. He received the B.S.E.E., M.S. and Ph.D. degrees from the University of Wisconsin, Madison, in 1957, 1959, and 1961, respectively.

From 1950 to 1954 he served in the U. S. Navy as an electronics technician engaged in shipboard radar maintenance. Upon receiving his discharge in 1954 he returned to the University of Wisconsin to resume his studies. During his graduate years he held both research and teaching assistant appointments and worked at Federal Engineering Company, Madison, Wis. In 1957 he was made Manager of Federal Engineering's Madison operation, where high vacuum evaporating equipment and electronic-optical control systems are designed, fabricated and operated for the production of optical interference filters. Upon completion of his studies in 1961 he was appointed Assistant Professor in the Electrical Engineering Department at the University of Wisconsin. He is presently engaged in teaching activities and in research involving microwave interaction with plasmas.

Dr. Beyer is a member of Eta Kappa Nu and Sigma Xi.



**Keith S. Champlin** (S'55-M'59) was born in Minneapolis, Minn., on August 20, 1930. He received the B.S., the M.S., and the Ph.D. degrees in electrical engineering in 1954, 1955 and 1958, respectively, all from the University of Minnesota, Minneapolis.



After serving in the U. S. Army Signal Corps in 1951 and 1952, he was briefly associated with the Physics Department of the University of Minnesota and with Remington Rand Univac. Both positions dealt with applications of radio telemetry to high altitude research. As a graduate student, he was engaged in research on noise in semiconductors, first as Research Assistant and later as Research Fellow. His thesis work was in the field of fluctuations in  $p-n$  junction devices. At present, he is Associate Professor of Electrical Engineering at the University of Minnesota. He is in charge of a research group employing microwave techniques to study electronic processes in semiconductors.

Dr. Champlin is a member of Tau Beta Pi, Eta Kappa Nu, Gamma Alpha, and Sigma Xi.



**Bernard C. De Loach, Jr.**, (M'57) was born in Birmingham, Ala., on February 19, 1930. He received the B.S. and M.S. degrees in physics from Auburn University, Auburn, Ala., in 1951 and 1952, respectively, and the

Ph.D. degree in physics from The Ohio State University, Columbus, in 1956.

Since 1956 he has been associated with the Bell Telephone Laboratories, Holmdel, N. J., where he has been concerned with microwave filters and high-frequency parametric amplifiers.

Dr. De Loach is a member of Sigma Xi, Pi Mu Epsilon, and Sigma Pi Sigma.



**Frank E. Goodwin** (S'57-M'58) was born in Hastings, Nebr., on September 7, 1927. He received the M.S. degree in applied physics from the University of California at Los Angeles in 1957.

He joined the Hughes Research Laboratories, Malibu,

Calif., in 1957. During 1957 and 1958 he conducted applied research on electronic scanning of microwave antennas. Since 1959 he has been Head of the Maser Applications Group, concerned with the development of solid-state masers and their applications to radar and allied systems.



**Jacob Gustincic** was born in Cleveland, Ohio, on October 3, 1938. He received the B.S. and M.S. degrees from Case Institute of Technology, Cleveland, Ohio, in 1960 and 1962, respectively.

He presently holds a Case Engineering Fellowship at Case Institute of Technology and is working on his dissertation for the Ph.D. degree. His research is in the area of plasma oscillations.

Mr. Gustincic is an associate member of Sigma Xi.



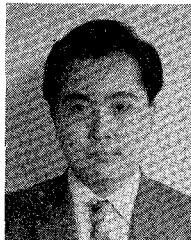
**Bengt T. Henoch** (M'62) was born in Kristianstad, Sweden on December 25, 1932. He received the M.Sc. degree in electrical engineering from Chalmers Institute of Technology, Gothenburg, Sweden, in 1955 and the "teknologie licentiat" degree in electrical engineering from the Royal Institute of Technology, Stockholm, Sweden, in 1960.

Since 1955 he has been associated with the Research Institute of National Defence, Stockholm, where he has been concerned with periodic structures for high-power tubes and parametric amplifiers of cavity and traveling-wave type. During 1961-1962 he spent a year at Stanford University, Stanford, Calif., doing research in tunnel-diode amplifiers and wide-band design of parametric amplifiers.

Mr. Henoch is a member of Svenska Teknologföreningen.



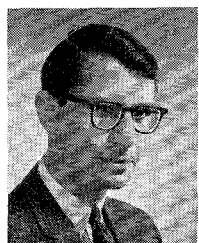
**Kauhiro Miyauchi** was born in Tokyo, Japan, on April 12, 1931. He received the B.S. degree in electrical engineering from Tokyo



University, Japan, in 1954.

He was employed by the Electrical Communication Laboratory of the Nippon Telegraph and Telephone Public Corp., Tokyo, Japan, in 1954, and has been engaged in research on millimeter-wave communication in the Hyperfrequency Research Section of the Laboratory since 1956. He has done research on the traveling-wave tube phase modulator, on an external circuit design of traveling-wave tube in the 24-Gc region, in analysis of FM communication in long-distance waveguide transmission, and on millimeter-wave transmission in circular waveguides. Recent research subjects include nanosecond pulse techniques in microwave and millimeter-wave regions, and millimeter-wave pulse communications.

Mr. Miyauchi is a member of the Institute of Electrical Communication Engineers of Japan.



**Gaylord E. Moss** (S'57-M'59) was born in Philadelphia, Pa., on December 28, 1934. He received the B.S.E.E. degree from Tufts University, Medford, Mass., in 1957, and the M.S.E.E. degree from the University

of Southern California, Los Angeles, in 1959.

In 1957 he joined the Hughes Aircraft Company, Culver City, Calif., as a participant in its Master of Science Fellowship program during which period he worked on various projects associated with fire control systems. Since 1959 he has been a member of the technical staff of the Hughes Research Laboratories, Malibu, Calif., where his work has involved the development of solid-state maser systems including the development of specialized microwave components and techniques.

Mr. Moss is a member of Tau Beta Pi.



**George Oltman** (A'50-M'55-SM-57) was born in Brookhaven, Mississippi, on October 6, 1927. He received the B.S. degree in 1950 and the M.S. degree in 1954, both in physics, from the University of New Mexico, Albuquerque, N. Mex.

From 1947 to 1957, he was with Sandia

Corporation in Albuquerque, except for a year's leave of absence in 1952, when he was an instructor at the University of New Mexico. At Sandia he was employed in the Ballistic Weapons Analysis Section and later joined the Staff of the Antenna Department. There he engaged in the design and development of UHF antenna and transmission line components. In 1957 he became Head of the Antenna Group of Electronic Specialty Company in Los Angeles. From 1958-1961, he was with Rantec Corporation, Calabasas, Calif., as a Senior Project Engineer engaging in microwave diagnostics of plasmas and development of microwave antennas, filters, and components. Since 1961, he has been with the Physical Electronics Laboratory of the Research Division of Space Technology Laboratories, Inc., Los Angeles, Calif., working with millimeter wave components and tubes and consulting on antennas.

Mr. Oltman is Past Chairman of the Albuquerque-Los Alamos Chapter of the Professional Group on Antennas and Propagation, and is presently Chairman of the Los Angeles Chapter of that group. He is a member of Kappa Mu Epsilon, the American Physical Society, a Fellow of the British Interplanetary Society, and a Registered Professional Engineer in New Mexico.



**Henry J. Riblet** (A'45-M'55-F'58) was born on July 21, 1913, in Calgary, Canada. He received the B.S. and Ph.D. degrees from Yale University, New Haven, Conn., in 1935 and 1939, respectively.

From 1939-1941 he taught mathematics at Adelphi College, Garden City, N. Y., and at Hofstra College, Hempstead, N. Y. He joined the Massachusetts Institute of Technology Radiation Laboratory, Cambridge, Mass., in 1942 and at the close of the war was in charge of one of the three developmental sections of the Antenna Group. From 1946 to 1948 he headed the RF group at the Submarine Signal Company, Boston, Mass. He is presently employed by the Microwave Development Laboratories, Inc., Natick, Mass., and is Professor of Engineering Practice at Harvard University.

Dr. Riblet is a member of the American Mathematical Society and the American Physical Society.



**Elmer H. Scheibe** (A'42-SM'51) was born in Milwaukee, Wis., on July 2, 1913. He received the B.S. degree in 1940, and the M.S. and Ph.D. degrees in electrical engineering in 1948 and 1951, respectively, from the University of Wisconsin, Madison.



He was an Instructor at the University of Wisconsin from 1942 to 1944. In 1944 he joined Jansky and Bailey, consulting radio engineers, in Washington, D. C., and during World War II conducted tests on the vulnerability to jamming of Armed Forces communications equipment. After the war he designed directional antennas, conducted AM and FM field intensity studies and did development work on FM field intensity measuring equipment. He returned to the University of Wisconsin in 1947 to teach and continue graduate work and is at present Professor of Electrical Engineering. He has been project director on government contracts since 1951, conducting research in the microwave area on surface wave lines, surface wave antennas, microwave filters and beam waveguides.

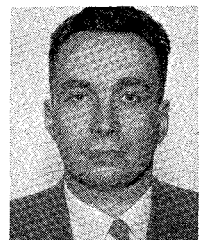
Dr. Scheibe is a member of ASEE, Sigma Xi and Eta Kappa Nu.



**S. R. Seshadri** (SM'61), for a photograph and biography, please see page 299 of the July, 1962, issue of these TRANSACTIONS.



**Joshua Shefer** (M'56-SM'62), for a photograph and biography, please see page 618 of the November, 1962, issue of these TRANSACTIONS.



**Willem J. D. Steenaart** (A'55-M'57) was born in Djakarta, Indonesia, on March 24, 1928. He received the E.E. degree from the Technical University of Delft, Netherlands, in 1953.

From 1953-1954, he worked at Philips Research Laboratories, Eindhoven, Netherlands. In 1954, he joined Northern Electric Company in Montreal, Quebec, and worked from 1955 to 1958 at Computing Devices of Canada in Ottawa, Ontario. Since March, 1958, he has been a Member of the Technical Staff at Bell Telephone Laboratories in Murray Hill, N. J., where he is concerned mainly with network synthesis and approximation.

Mr. Steenaart is a member of the Royal Netherlands Institute of Engineers and of the Netherlands Radio Institute.