

Contributors

Carl F. Augustine was born in Shiawassee County, Mich., on April 19, 1925. He received the B.S. and M.S. degrees in physics from Michigan State University, East Lansing, in 1950 and 1952, respectively.



C. F. AUGUSTINE

From 1952 to 1957, he was employed by Bell Telephone Laboratories, N. Y. He was concerned with developments of computer equipment, communication relay links, and equipment capable of precision measurements at microwave frequencies. In 1957, he joined Bendix Research Laboratories, Detroit, Mich., where he has since been active in the development of broad-band microwave components. He has devised new techniques and designed new equipment for precise, rapid measurement of microwave component characteristics.

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Luiz C. Bahiana was born in Rio de Janeiro, Brazil, on February 18, 1928. He attended the Naval Academy from 1945 to 1951, and served in the Navy, as a career officer from 1951 to 1956. During this time, he worked primarily with fire control systems. He entered Massachusetts Institute of Technology, Cambridge, as a graduate student in 1956, and received the M.S. and E.E. degrees in 1958 and 1959, respectively.



L. C. BAHIANA

In 1959, he returned to the Brazilian Navy (Diretoria de Eletronica da Marinha), working as a systems engineer in the field of communication.

Mr. Bahiana is a member of Sigma Xi and the Acoustical Society of America.

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John Brown (SM'57) was born on July 17, 1923, in Auchterderran, Scotland. He received the M.A. degree in mathematics and natural philosophy from the University of Edinburgh, Scotland, in 1944, and the Ph.D. and D.Sc. (Eng.) degrees from the University of London, England, in 1954 and 1960, respectively.

From 1944 to 1951, he was on the staff of the Radar Research and Development Establishment, Malvern, Eng., and was mainly concerned with theoretical studies of microwave antennas. In 1951, he became a lecturer in electrical engineering at the Imperial College of Science and Technology and in 1955 moved to University College, London, where he is now reader in electrical engineering.

Dr. Brown is an associate member of the IEE.

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James Cheal (M'57) was born in Sunfield, Mich., on March 3, 1924. He received the B.S.E.E. degree from Michigan State University, East Lansing, in 1950.

From 1950 to 1952, he was employed by International Business Machines Corporation, Lansing, Mich., as field engineer. He joined Bendix Research Laboratories, Detroit, Mich., in 1952, and was responsible for the development of a new K-band feed for a paraboloidal reflector and for the design of UHF antennas and duplexers. From 1955 to 1956, he was employed by the Burroughs Corporation, Detroit, where he was assigned to the development effort which resulted in the prototype Sage computer. He rejoined Bendix Research Laboratories in 1956, and has since been responsible for the development of a wide range of microwave components using new materials and new techniques.



J. CHEAL

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Marvin Cohn (S'49-A'51-M'57) was born in Chicago, Ill., on September 25, 1928. He received the B.S.E.E. degree in 1950 and the M.S.E.E. degree in 1953, both from the Illinois Institute of Technology, Chicago.



M. COHN

From 1952 until he entered the U. S. Army Signal Corps in 1953. He was sta-

tioned at White Sands Proving Grounds, where he worked on the analysis of missile tracking systems. In 1955, he returned to the Radiation Laboratory, where he has done research and development work on broad-band and superheterodyne receivers and surface-wave transmission lines. He was head of the Millimeter Wave Techniques Group of the Radiation Laboratory.

In June, 1960, he completed the requirements for the Doctor of Engineering degree at The Johns Hopkins University. He is presently a research scientist with the research division of Electronic Communications, Inc., Timonium, Md.

Mr. Cohn is a member of Eta Kappa Nu, Tau Beta Pi and Sigma Xi.

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Paul D. Coleman (A'46-M'56) was born in Stoystown, Pa., on June 4, 1918. He received the B.A. degree from Susquehanna

University, Selinsgrove, Pa., in 1940, the M.S. degree in physics from Pennsylvania State University, University Park, in 1942, and the Ph.D. degree in physics from the Massachusetts Institute of Technology, Cambridge, in 1951.

P. D. COLEMAN

He was employed as a physicist with the U. S. Signal Corps and subsequently the U. S. Air Force at Wright Air Development Center, Dayton, Ohio, from 1942 to 1946. During this period, he was engaged in work on electromagnetic theory, and received the AAF Meritorious Civilian Award in 1946 for his contribution to aircraft antenna theory.

From 1946 to 1951, he was a physicist with the U. S. Air Force at the Cambridge Air Research Center and later a research associate in physics in the Research Laboratory of Electronics at M.I.T., where he was concerned with the generation of submillimeter waves.

In 1951, he became an associate professor in electrical engineering at the University of Illinois, Urbana, where he established the Ultramicrowave Group in the Electrical Engineering Research Laboratory. He is presently a professor on the graduate electrical engineering staff, directing research on submillimeter wave generation.

In 1959, Dr. Coleman became a member of the Board of Technological Counselors of FXR, Inc., Woodside, N. Y., and was later elected chairman. He is a member of Sigma Xi, the American Physical Society, and Pi Mu Epsilon.

Wilhelm H. Eggemann was born on April, 1929, in Zürich, Switzerland. He received the diploma in electrical engineering in 1954 from the Swiss Federal Institute of Technology, Zürich. From 1954-1956, he worked as an instructor and research assistant at the same institute. In 1956, he entered Case Institute of Technology, Cleveland, Ohio, working as an instructor. He received the M.S.E.E. degree in 1959 from Case Institute, where he is now studying towards the Ph.D. degree. He is presently engaged in research work on ferrites in microwave applications and artificial dielectrics.

Mr. Eggemann is an associate member of Sigma Xi.

Georges Goudet (SM'50-F'60) was born in Dijon, France, in 1912. He received several scholarships at the Ecole Normale Supérieure, Dijon. In 1936, he became an Agrégé (fellow) of physical science at the University. After serving as an artillery officer during World War II, he completed his work for the Ph.D. degree in physics in 1942, at Paris University.

During 1943 and 1944, he worked on microwave tubes at the Laboratoire Centrale de Télécommunications, in Paris. He then became the head of the ultra-high-frequency laboratory of the French Posts, Telegraphs and Telephones Administration. In 1951, he joined the staff of Nancy University, Nancy, as a professor and director of the special school of electricity and mechanics. He has served as a consultant to Laboratoire Centrale de Télécommunications, and in 1955 became its director.

Dr. Goudet is a member of the Société Française de Physique, the Société Française des Electriciens and a Vice-President of the Société des Radioélectriciens.

Basil W. Hakki (S'58) was born in Damascus, Syria (U.A.R.) on November 10, 1935. He received the B.E.E. degree from the American University of Beirut, Beirut, Lebanon, in 1957, and the M.S. degree in communication engineering from the University of Illinois, Urbana, in 1958.

In 1956, he worked for Philips Telecommunication Industry in Hilversum, The Netherlands, on the analysis of transients in



W. H. EGGEMANN

filter networks. Since 1958, he has been associated with the Ultramicrowave Section of the Electrical Engineering Department of the University of Illinois, where he is working for the Ph.D. degree. He is now involved in the analysis and design of a submillimeter primary source of electromagnetic radiation.

Mr. Hakki is a member of Pi Mu Epsilon, the Society for Industrial and Applied Mathematics, and the American Physical Society.



B. W. HAKKI

A. F. Harvey, for a photograph and biography please see page 482 of the October, 1959 issue of these TRANSACTIONS.



G. GOUDET

During 1943 and 1944, he worked on microwave tubes at the Laboratoire Centrale de Télécommunications, in Paris. He then became the head of the ultra-high-frequency laboratory of the French Posts, Telegraphs and Telephones Administration. In 1951, he joined the staff of Nancy University, Nancy, as a professor and director of the special school of electricity and mechanics. He has served as a consultant to Laboratoire Centrale de Télécommunications, and in 1955 became its director.

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R. D. HAUN, JR.

the cesium atomic beam frequency standard. He received the Ph.D. degree in physics from M.I.T. in 1957.

Since then he has been engaged in ferromagnetic resonance, parametric amplifier, and tunnel diode studies at the Westinghouse Research Laboratories, Pittsburgh, Pa.

Dr. Haun is a member of the American Physical Society, Sigma Xi, and Phi Beta Kappa.

Robert D. Haun, Jr. (S'56-M'57) was born in Lexington, Ky., on April 3, 1930. He received the B.S. degree in physics from the University of Kentucky in 1952. After one semester at the graduate school of Columbia University, New York, N.Y., he entered the Massachusetts Institute of Technology, in Cambridge, where he worked under J. H. Zacharias as a research assistant on the development of

the cesium atomic beam frequency standard. He received the Ph.D. degree in physics from M.I.T. in 1957.

Since then he has been engaged in ferromagnetic resonance, parametric amplifier, and tunnel diode studies at the Westinghouse Research Laboratories, Pittsburgh, Pa.

Dr. Haun is a member of the American Physical Society, Sigma Xi, and Phi Beta Kappa.

Koryu Ishii (M'55) was born in Tokyo, Japan, on March 18, 1927. He received the B.S.E.E. degree from Nihon University, Tokyo, in 1950, and the M.S. and Ph.D. degrees in electrical engineering in 1957 and 1959, respectively, from the University of Wisconsin, Madison.

From 1949 to 1956, he did research on microwave circuits and amplifiers, and instructed students at Nihon Uni-

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versity. From 1956 to 1959, he worked particularly on research of the noise figure of the reflex klystron amplifiers and cascaded reflex klystron amplifiers at the University of Wisconsin.

Since July, 1959, he has been engaged in establishing a millimeter-wave laboratory at Marquette University, Milwaukee, Wis. At present, he is an Assistant Professor at Marquette.

Dr. Ishii is a member of Sigma Xi, the ASEE, and the Institute of Electrical Communication Engineers of Japan.

Kiyoshi Morita (SM'54) was born in Tokyo, Japan, on March 18, 1901. He was graduated in 1921 from Tokyo Higher Technical School, which was chartered later at the Tokyo Institute of Technology, and won the Teijima honor prize the same year. In 1933 he received the Doctorate degree in electrical engineering from the Tokyo Imperial University.

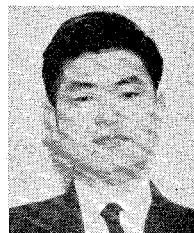
He was appointed professor at the Tokyo Institute of Technology in 1941, and was primarily concerned with the development of measuring apparatus for dielectric loss, paraboloidal reflectors, and triple-line feeders. Since then he has given lectures on high-frequency and electronic engineering.

He won an honor prize for his contribution on UHF techniques from the Nippon Radio Kyokai in 1946. The same year he became chief of the Special Committee for UHF Measurement, sponsored by the Ministry of Education, and was active in the development of the wattmeter for UHF. Since 1949 he has headed the Committee for the Development of Vacuum Tubes for Microwaves.

In 1950, he was sent to the United States by the Galloa Fund. He visited Cornell University, Polytechnic Institute of Brooklyn, the University of Michigan, and other universities to observe the American electrical engineering educational system, and later contributed to the improvement of teaching methods in Japanese universities. He has also worked, in collaboration with American professors visiting Japan, in the engineering section of the Institute for Educational Leadership.

Dr. Morita is an official member of Commission VI of URSI (International Scientific Radio Union).

Louis D. Smullin (S'39-A'40-SM'51-F'57) was born on February 5, 1916, in Detroit, Mich. He received the B.S.E.E. degree from the University of Michigan, Ann Arbor, in 1936, and the M.S. degree from the Massachusetts Institute of Technology, Cambridge, in 1939.



K. ISHII

Prior to World War II, he was active in industrial research. From 1941 to 1946, he served on the staff of M.I.T.'s Radiation Laboratory, where he was responsible for the development of TR tubes and duplexers. From 1946 to 1947, he headed the Microwave Tube Group at the Federal Telecommunications Laboratory in Nutley, New Jersey. He was on the staff of the M.I.T. Research Laboratory of Electronics from 1947 to 1950. Prior to joining the faculty of M.I.T. in 1955, where he is now Professor of Electrical Engineering and Head of the Microwave Laboratory in the Research Laboratory of Electronics, he served as Head of the Radar and Weapons Division of the Lincoln Laboratory, M.I.T.

In that capacity he was responsible for the development of new, high-power, ground and air-borne radars, and an anti-aircraft weapon system. Since 1955, his research has been in the microwave tube field, and more recently it has been concerned with the interaction phenomena between electron beams and plasmas.

Prof. Smullin is a member of the American Physical Society and a Fellow of the American Academy of Arts and Sciences.



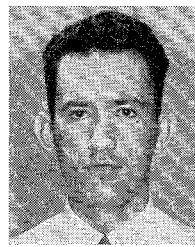
L. D. SMULLIN

Gaspar R. Valenzuela (S'54-M'56) was born on January 6, 1933, in Coelemu, Chile. He received the B.S.E.E. and M.S.E.E. degrees from the University of Florida, Gainesville, in 1954 and 1955, respectively.

After graduation, he joined the electronics division of the Westinghouse Electric Corporation, Baltimore, Md., as an asst. more, Md., as an associate engineer, where he was engaged in microwave components development until 1957.

From 1957 to 1959, he worked at the Applied Physics Laboratory of The Johns Hopkins University, Baltimore, as an associate staff member. In 1959, he became a senior staff member. During his stay at APL, he worked in research and development of printed microwave transmission lines, radar techniques, general microwave design and development.

Presently he is at The Johns Hopkins Radiation Laboratory where, since 1956, he has been engaged in part-time graduate work.



G. R. VALENZUELA

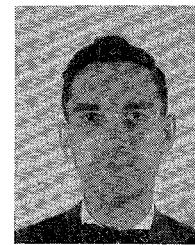
Leo Young (M'54-SM'57) was born in Vienna, Austria, on August 18, 1926. After winning a scholarship from St. Johns College, Cambridge, England, he obtained the B.A. degree with honors in mathematics in 1945 and the B.A. degree with honors in physics in 1947. He received the M.A. degree from Cambridge University in 1950.

He was an engineer with A. C. Cossor, Ltd., London, from 1948 to 1951. From then until 1953, he was associated with Decca Radar Ltd., as head of the Microwave and Antenna Laboratory.

He came to the United States in 1953 to join the Westinghouse Electric Corporation, Baltimore, Md. where he is presently an advisory engineer in the Electronics Division.

He was awarded the M.S.E.E. degree by The Johns Hopkins University, Baltimore, in 1956, held the Westinghouse Electric Corporation's B. G. Lamme Scholarship during 1958-1959, and obtained the Dr.Eng. degree from Johns Hopkins in 1959.

Dr. Young, a registered professional engineer in Maryland, is a member of Sigma Xi, the AIEE and the IEE.



L. YOUNG

