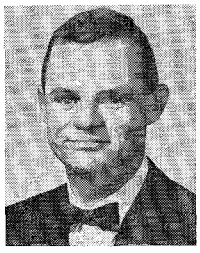
Contributors



Casper W. Barnes (M'38–SM'59) was born in Leesburg, Fla., on November 24, 1927. He received the B.S.E.E. degree in 1950 and the M.S.E. degree in 1952, from the University of Florida, Gainesville. In 1954 he received the Ph.D. degree from Stanford University, Stanford, Calif.

From 1951 to 1953 he was a National Research Council Fellow. From 1954 to 1956 he was head of the High-Power Traveling-Wave Tube Development Group at the Sylvania Microwave Tube Lab., Mountain View, Calif. Since 1956, he has been a Senior Research Engineer at Stanford Research Institute, Menlo Park, Calif., where he has been engaged in theoretical studies in the general field of physical electronics.

Dr. Barnes is a member of Sigma Xi, and the American Physical Society.

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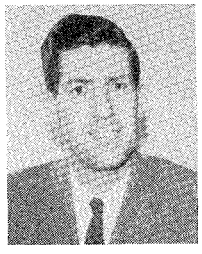
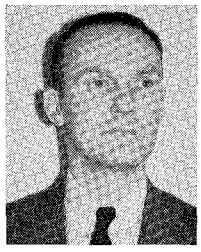


Donald M. Bolle (S'56 – M'57) was born in Amsterdam, The Netherlands, on March 30, 1933. He received the B.Sc. degree with honors in electrical engineering from Durham University, England, and the Ph.D. degree in electrical engineering from Purdue University, Lafayette, Ind., in 1961.

From 1954 to 1956 he was a research engineer with the Electrical Musical Industries, Hayes, Middx, England. He taught at Purdue University from 1956 to 1962, first as an instructor, then as an Assistant Professor in Electrical Engineering. The academic year 1962 to 1963 was spent as an NSF Post-doctoral Fellow in the Department of Applied Mathematics and Theoretical Physics, Cambridge University, Cambridge, England, working on some problems in electromagnetic wave scattering. Since 1963 he has been at Brown University, Providence, R. I., as an Assistant Professor of Engineering engaged in teaching and pursuing his interests in the scattering of electromagnetic waves by irregularly shaped structures, propagation through anisotropic media, as well as some problems in cavities loaded by anistropic media.

Dr. Bolle is a member of Eta Kappa Nu, Tau Beta Pi, Sigma Xi, the American Society for Engineering Education, and the American Association of University Professors.



J. Robert Collier (S'62–M'63) was born in Youngstown, Ohio, on June 4, 1930. He received the B.S. degree in physics from the Rensselaer Polytechnic Institute, Troy, N. Y., in 1953, and the M.S. and and Ph. D. degrees in physics from Ohio State University, Columbus, Ohio, in 1957 and 1964, respectively.

From 1953 to 1955, he served in the Air Force at the Aerial Reconnaissance Lab., Wright-Patterson Air Force Base, Dayton, Ohio, in the fields of mapping lenses and electric conducting films for defogging aircraft camera windows. He worked at the Ohio State University Antenna Lab. until 1964, where he was engaged in problems involving antenna obstacles, monopulse radar, and interaction of electromagnetic waves with plasmas of shock fronts. In June 1964, he joined DECO Electronics in Leesburg, Va., as Senior Engineer, where he is presently working on through-the-earth radio communication.

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

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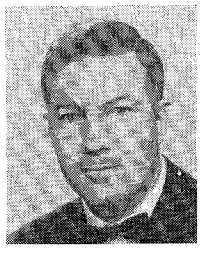

Robert E. Collin (M'54–SM'60) was born in Donalda, Alberta, Canada, on October 24, 1928. He received the B.S. degree in engineering physics from the University of Saskatchewan, Saskatoon, Canada, in 1951. The following two and a half years were spent in graduate work at Imperial Collere, London, England, from which he received the Ph.D. degree and the diploma of Imperial College, in 1954.

From March, 1954 to January, 1958 he was a Scientific Officer with the Canadian Armament Research and Development Establishment at Valcartier, Quebec, where he was engaged in missile work. He joined the Electrical Engineering Department Staff at Case Institute of Technology, Cleveland, Ohio, in February, 1958, where he is presently Professor of Electrical Engineering.

Dr. Collin is a member of URSI Commission VI, Sigma Xi, and Eta Kappa Nu.

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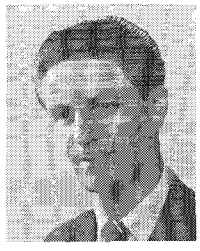
Frans C. de Ronde was born in Schiedam, The Netherlands, on June 20, 1923. He received the degree in electrical engineering from the Technische Hogeschool of Delft, The Netherlands, in 1953.



He joined the Philips Research Laboratories at Eindhoven, The Netherlands, in 1952, where he is concerned with research on microwave techniques and components.

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

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Gerald S. Heller was born in Detroit, Mich., on September 5, 1920. He received the Sc.B. degree in physics from Wayne University, Detroit, Mich., in 1942, the Sc.M. degree in applied mathematics in 1946, and the Ph.D. degree in physics in 1948 from Brown University, Providence, R. I.

From 1942 to 1945 he was a staff member of the Radiation Lab., Massachusetts Institute of Technology, Cambridge, Mass., spending one year of this time as a member of the Australian Group of the Radiation Laboratory, University of Sydney, Australia. From 1948 to 1954 he was Assistant Professor of Physics at Brown University. In 1954 he became a member of the technical staff of the M.I.T. Lincoln Lab., Lexington, Mass., advancing to group leader in charge of the Resonance Physics Group. He rejoined the faculty of Brown University as Professor of Engineering in 1963. His interests have included topics in wave propagation in inhomogeneous and anisotropic media, ferrite devices, cyclotron resonance in semiconductors and millimeter waves. His present research interests include the study of ferro-, ferri- and antiferromagnetic materials and their application to devices in the millimeter and submillimeter regions of the electromagnetic spectrum.

Dr. Heller is a member of Sigma Xi, Tau Beta Pi, Sigma Pi Sigma, and the American Physical Society.

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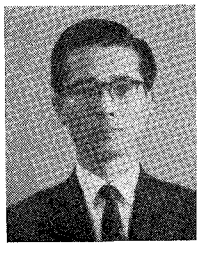

Tetsuro Ishida was born in Kagoshima, Japan, on May 8, 1922. He received the B.S. and the Ph.D. degrees in electrical engineering from Tohoku University, Sendai, Japan, in 1945 and 1961, re- respectively.

From 1945 to 1952 he was engaged in education and research in Kagoshima Prefectural Technical College and Kagoshima Prefectural University. In 1952 he was appointed an Assistant Professor of Yamanashi University and became a Professor in 1963, where he has been working in basic research in the microwave field.

Dr. Ishida is a member of the Institute of Electrical Communication Engineers of Japan.

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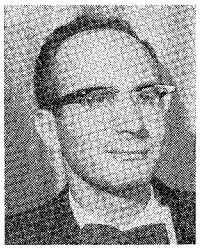

Irving Kaufman (S'45 – A'47 – M'54 – SM'62) was born in Geinsheim, Germany, on January 11, 1925. He received the B.E. degree from Vanderbilt University, Nashville, Tenn., in 1945, and the M.S. and Ph.D. degrees from the University of Illinois, Urbana, in 1949 and 1957, respectively.

From 1945 to 1958 he was employed by RCA Victor, Indianapolis, Ind., and Camden, N. J. From 1948 to 1957 he was at the University of Illinois, where he was engaged in teaching and research, the latter in the Ultramicrowave Lab. Since 1957 he has been a Member of the Technical Staff of the laboratory, which earlier was the Electronic Research Lab. of the Ramo Wooldridge Corp., and is now part of the Physical Research Div. of TRW Space Technology Labs., Redondo Beach, Calif. He is presently on leave of absence to spend the year at the Centro Microonde, Florence, Italy, under the auspices of a Fulbright-Hays grant.

Dr. Kaufman is presently on the Administrative Committee and Editorial Board of the Microwave Theory and Techniques Group. He is a member of the American Physical Society, Sigma Xi, Tau Beta Pi, Eta Kappa Nu, and Pi Mu Epsilon.

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Nobuaki Kumagai (M'59) was born in Ryojun, Japan, on May 19, 1929. He received the B.S. and Ph.D. degrees in electrical engineering from Osaka University, Osaka, Japan, in 1953 and 1959, respectively.

From 1958 to 1960 he was a Visiting Research Engineer at the Electronics Research Lab. of the University of California, Berkeley, engaged in problems of electromagnetic wave scattering and parametric amplifiers. Since 1960 he has been an Associate Professor of Electrical Communication Engineering at Osaka University, engaged in studies of microwave circuits, millimeter-wave components, solid-state devices, lasers and their applications.

Dr. Kumagai is a member of the Institute of Electrical Communication Engineers of Japan, the Institute of Electrical Engineers of Japan, the Japan Society of Applied Physics, and the Physical Society of Japan.

Roderic B. Larrick (A'64) was born in San Francisco, Calif., on May 5, 1939. He received the A.A. degree in electronic technology from City College of San Francisco in 1961 and is now working towards the B.S.E.E. degree.

Since 1962 he has worked at the Electromagnetic Techniques Laboratory at Stanford Research Institute in Menlo Park, Calif. His work there has been concerned with the techniques of measuring and suppressing spurious energy from high power microwave transmitters.

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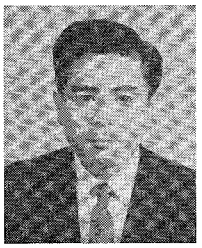

Yasuto Mushiake (A'55–SM'60) was born in Okayama Prefecture, Japan, on March 28, 1921. He received the degree of Kogakushi in electrical communication engineering and the degree of Doctor of Engineering from the Tohoku Imperial University, Sendai, Japan, in 1944 and 1954, respectively.

He was an Assistant Professor of Electrical Communication Engineering at Tohoku University from 1949 to 1960 and also a Visiting Research Associate at the Antenna Lab. at Ohio State University, Columbus, Ohio, from 1954 to 1956. Since 1960 he has been a Professor of Electrical Communication Engineering at Tohoku University. He has been engaged in research works in the field of antennas, microwave circuits, and radio propagation.

Dr. Mushiake is a member of the Institute of Electrical Engineers of Japan, Institute of Electrical Communication Engineers of Japan, and the Institute of Television Engineers of Japan.

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J. H. Richmond (S'49–M'56–SM'59) was born in Kalispell, Montana, on July 30, 1922. He served in the United States Navy as a Chief Electronics Technician from 1940 to 1946 and from 1950 to 1951. In 1950 he graduated summa cum laude from Lafayette College, Easton, Pa., with the B.S. degree in electrical engineering. In 1952 he received the M.Sc. degree in electrical engineering and in 1955 the Ph.D. Degree at The Ohio State University, Columbus.

Since 1952 he has been engaged in research on radomes, inhomogeneous media, and scattering problems at the Antenna Laboratory of The Ohio State University. He has been on the faculty of the Dept. of Electrical Engineering since 1955, and is now a Professor.

Dr. Richmond is a member of Tau Beta Pi, Phi Beta Kappa, Sigma Xi, Pi Mu Epsilon, and Eta Kappa Nu.

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J. Rosen, for a photograph and biography, please see page 393 of the May, 1965, issue of these TRANSACTIONS.

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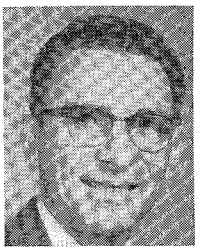

Bernard M. Schiffman (S'51–A'53–M'57) was born in New York, N. Y., on December 5, 1915. He received the B.S. degree in electrical engineering from State University of Iowa, Iowa City, in 1952, and the M.S. degree in electrical engineering from Stanford University, Stanford, Calif., in 1959.

In 1952, he was employed at the Hazeltine Electronics Corp., Little Neck, N. Y. From 1954 to 1956, he worked at Sylvania's Electronic Defense Laboratory, Mountain View, Calif., where he designed a high-power countermeasures transmitter and did microwave component research. In 1956 he joined the Microwave Group of Stanford Research Institute, Menlo Park, Calif., where he worked on 90° phase-shifters and developed the first waffle-iron filter. From 1959 to 1961, he worked at Varian Associates and there invented and received patents for new forms of the orthogonal mode mixer. In 1962, he returned to the Electromagnetic Techniques Laboratory of SRI where he is engaged in microwave component research.

Mr. Schiffman is a member of the Scientific Research Society of America and Eta Kappa Nu.

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H. Seidel, for a photograph and biography, please see page 393 of the May, 1965, issue of these TRANSACTIONS.

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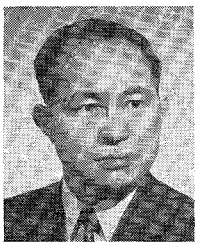

Ronald F. Soohoo (SM'60) was born in Canton, China, on September 1, 1928. He received the B.S. degree from Massachusetts Institute of Technology, Cambridge, in 1948, and the M.S. and Ph.D. degrees from Stanford University, Stanford, Calif., in 1952 and 1957, respectively. His studies were in electrical engineering and physics.

From 1948 to 1951 he was engaged in the design and analysis of power systems while an Assistant Engineer for the Pacific Gas and Electric Co., San Francisco, Calif. He then became a Research Assistant at the Microwave Labs., W. W. Hansen Labs. of Physics, Stanford, and the Stanford Electronics Labs., where he was involved with microwave tube and ferrite research from

1951 to 1954. From 1954 to 1958 he was a Research Physicist and then Director of Research Analysis with the Cascade Research Corp., Los Gatos, Calif., engaged in the design of ferrite devices, research in microwave ferrites, microwave tubes, and solid-state physics. From 1958 to 1961, he was a Physicist on the research staff of M.I.T. Lincoln Lab., Lexington, Mass., where he was engaged in theoretical and experimental research in magnetism and magnetic resonance. Since 1961 to 1964 he was an Associate Professor in the Division of Engineering and Applied Science at the California Institute of Technology, Pasadena, where he was engaged in teaching and research in solid-state and resonance physics. Since 1964 he has been Professor of Engineering at the University of California, Davis.

Dr. Soohoo is a member of the American Physical Society, Sigma Xi, and the Biophysical Society.

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C. T. Tai (S'44–A'48–SM'51–F'62) was born in Soochow, China, on December 30, 1915. He received the B.S. degree from Tsin Hua University, Peiping, China, in 1937, and the D.Sc. degree from Harvard University, Cambridge, Mass., in 1947.

He was a Research Fellow at Cruft Laboratory, Harvard University, from 1947 to 1949, and a Senior Research Associate at Stanford Research Institute, Menlo Park, Calif., from 1949 to 1954. He joined the Ohio State University, Columbus, as an associate professor of Electrical Engineering, in 1954. From 1956 to 1960, he was a Professor of Electronics at Instituto Technologico de Aeronautica, Brazil. From 1960 to 1964, he was Professor of Electrical Engineering at the Ohio State University, Columbus. Since then, he has been Professor of Electrical Engineering at the University of Michigan, Ann Arbor.

Dr. Tai is a member of Sigma Xi, URSI Commission VI, American Physical Society, and Eta Kappa Nu.

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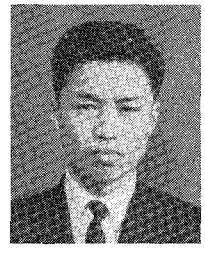
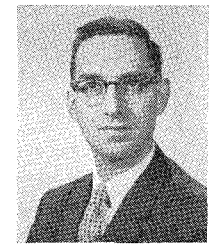


Hei-ichi Yamamoto (S'62) was born in Okayama, Japan, on December 25, 1940. He received the B.S. and M.S. degrees in electrical communication engineering from Osaka University, Osaka, Japan, in 1963 and 1965, respectively.

Since 1965 he has been with Nippon Telegraph and Telephone Public Corp., Tokyo, Japan.

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



Leo Young (M'54–SM'56) was born in Vienna, Austria, on August 18, 1926. After winning a scholarship from St. Johns College, Cambridge, England, he obtained at Cambridge 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 awarded the M.S.E.E. degree by the Johns Hopkins University, Baltimore, Md., in 1956, held the Westinghouse Electric Corporation's B. G. Lamme Scholarship during 1958–1959, and obtained the D.Eng. degree from Johns Hopkins, in 1959.

He was an Engineer with A. C. Cossor, Ltd., London, from 1948 to 1951, and from 1951 to 1953 was associated with Decca Radar Ltd., London, as head of the Microwave and Antenna Laboratory. He came to the United States in 1953, joining the Westinghouse Electric Corporation, Baltimore, where he was an Advisory Engineer in the Electronics Division. Since 1960, he has been at Stanford Research Institute, Menlo Park, Calif., where he is now Head of the Microwave Techniques Program. He is editor of the series, **Advances in Microwaves,** which is in preparation by Academic Press.

Dr. Young is a member of Sigma Xi, the IEE, and the Optical Society of America. He was the winner of the 1963 Microwave Prize of the G-MTT.