

Contributors



Henry Berger (M'64) was born in New York, N. Y., on February 8, 1936. He received the B.S. and M.S. degrees in physics, and the Ph.D. degree in electrophysics, from the Polytechnic Institute of Brooklyn, Brooklyn, N. Y., in 1957, 1959, and 1967, respectively.

From 1957 to 1959 he was a Research Assistant in the Rocket Propulsion Laboratory of the Polytechnic Institute of Brooklyn, Farmingdale, N. Y., engaged in studies of nonlinear wave phenomena. From 1959 to 1962 he was an engineer at the Sperry Gyroscope Co., Great Neck, N. Y., working on the research and development of microwave devices. From 1962 to 1967 he was engaged in full-time graduate research in the areas of transient wave propagation in dispersive waveguides, microwave device theory, and the relativistic electrodynamics of moving media. In 1967 he joined the General Telephone and Electronics Laboratories, Bayside, N. Y., in the Exploratory High-Frequency Solid-State Devices Group, and conducted research on avalanche, transferred-electron, and acoustoelectric diodes. In 1969 he joined the Microwave Components Group of the M.I.T. Lincoln Laboratory, Lexington, Mass., where is presently engaged in research on active solid-state microwave devices.

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

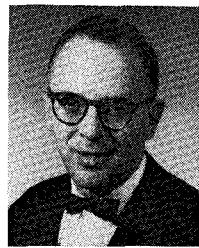


R. James Clowes was born in Hendon, England, on September 7, 1931. He received the B.A. and M.A. degrees in mathematics from Cambridge University, England, in 1955 and 1965, respectively.

In 1955 he joined the Electrical Research Association, working initially in the Surges and Transformer Department on problems connected with surge voltage distribution in transformer and rotating machine windings, later transferring to the Mathematics Department working on a wide range of topics connected with electrical power distribution. Since 1967 he has been with Plessey Company Ltd., Romsey, Hampshire, England, where he has been mainly concerned with various aspects of electromagnetic theory.

Eta Kappa Nu, Sigma Xi, the American Physical Society, and the Metallurgical Society of the AIME.

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Richard L. Harrison (A'47-M'47-SM'60) was born in New York, N. Y., on June 14, 1923. He received the B.E.E. degree from the City College of New York, N. Y., in 1946, and the M.E.E. degree and the Ph.D. degree in electrophysics from the Polytechnic Institute of Brooklyn, Brooklyn, N. Y.

He was a Research Associate and a Senior Research Fellow at the Microwave Research Institute, Polytechnic Institute of Brooklyn, from 1949 to 1950. From 1951 to 1969 he conducted research at the General Telephone and Electronics Laboratories, Bayside, N. Y., and its predecessor, Sylvania Research Laboratories, Inc., on various solid-state and vacuum electronic devices including Gunn effect, avalanche effect, hot carrier effects, varactors, maser interactions, and traveling-wave tubes. At present he is an Associate Professor in the Department of Electrical Engineering, New York University, where he has been engaged in teaching and research in solid-state devices and electrophysics.

Dr. Harrison is a member of Tau Beta Pi, Eta Kappa Nu, Sigma Xi, and the Scientific Research Society of America (RESA).

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Stephen P. Denker (S'55-M'64) was born in New York, N. Y., on November 11, 1937. He received the S.B., S.M., and Ph.D. degrees in electrical engineering from the Massachusetts Institute of Technology, Cambridge, Mass., in 1959, 1960, and 1963, respectively.

While at M.I.T. he was a cooperative student with the General Radio Co. in West Concord, Mass., where he worked on high-frequency transistor amplifier design. From 1963 to 1967 he was an Assistant Professor of Electrical Engineering at Columbia University, New York, N. Y., where he conducted research on electronic properties of nonstoichiometric and disordered transition-metal compounds. From 1967 to 1968 he was with the General Telephone and Electronics Laboratories, Bayside, N. Y., where he studied microwave power generation in piezoelectric semiconductors and avalanche diodes. In December, 1968, he joined the Schlumberger-Doll Research Center, Ridgefield, Conn., where he is presently working on electrical methods for determining subsurface lithology and hydrocarbon saturation. In September, 1969, he was appointed Adjunct Associate Professor of Electrical Engineering at New York University.

Dr. Denker is a member of Tau Beta Pi,



Stewart V. Judd was born in Southampton, England, on April 5, 1935. He received the B.Sc. degree in physics and mathematics from the University of Southampton, in 1957, and the Diploma in Electronics from the University of Southampton, in 1958.

In 1958 he joined the Roke Manor Research Laboratory of the Plessey Company Ltd., Romsey, Hampshire, England, and until 1967 was engaged in research on low and medium power microwave transmitters and microwave frequency memory systems. Since

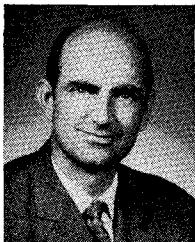


Philip S. Carter (S'48-A'50-M'56) was born in Marion, Mass., on May 23, 1926. He received the B.S. degree in electrical engineering from Cornell University, Ithaca, N. Y., in 1948, and the M.S. and Ph.D. degrees from Stanford University, Stanford, Calif., in 1952 and 1954, respectively.

He has worked in the fields of antennas and microwaves, including YIG filters and related devices, at Stanford Research Institute, Menlo Park, Calif., and with several firms in the San Francisco Bay Area. He is presently employed by Physical Electronics Laboratories, Menlo Park, Calif., where he is engaged in the development of YIG-tuned microwave oscillators.

1967 he has been concerned with research and development activities in microwave integrated circuits and high speed digital communications. He is presently Group Leader of the Microwave Techniques Group at Roke Manor.

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Darko Kajfez (SM'67) was born in Delnice, Yugoslavia, on July 8, 1928. He received the Electrical Engineer's degree (Dipl. Ing.) from the University of Ljubljana, Yugoslavia, in 1953, and the Ph.D. degree in engineering from the University of

California, Berkeley, in 1967.

From 1950 to 1963 he has worked in different R & D laboratories in Yugoslavia, primarily on microwave links and radars. In 1963 he became a Research Assistant at the Electronics Research Laboratory, University of California, Berkeley, where he investigated printed circuit baluns, helical antennas, and equiangular spiral antennas. He was also associated with Scala Radio Company in San Leandro, Calif., investigating different UHF antennas. In 1967 he joined the University of Mississippi, University, as an Associate Professor in Electrical Engineering where he is now active in teaching and research in electromagnetic theory and its applications to microwave circuits and antennas

search Laboratory, Aldermaston, working on low-loss waveguide and cyclotron wave electron tubes. In 1963 he joined the Plessey Company Ltd., Romsey, Hampshire, England, and was initially engaged in microwave component development and measurement. Since 1966 he has been primarily engaged in research in microwave integrated circuits.

Mr. Rickard is an associate member of the Institution of Electrical Engineers (London).

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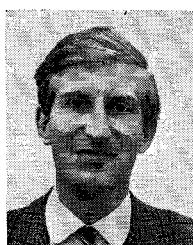
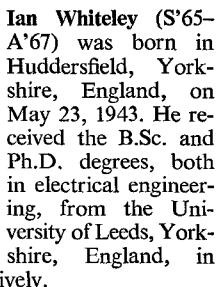


Donald H. Temme (S'55-M'56) was born in Wayne, Neb., on January 12, 1928. He received the B.S. degree in electrical engineering from the University of Nebraska, Lincoln, in 1949, and the M.S. degree in electrical engineering

from Massachusetts Institute of Technology, Cambridge, in 1955.

From 1951 to 1958 he served in the U.S. Air Force. In 1958 he joined the engineering staff of M.I.T. Lincoln Laboratory. In 1967 he became Assistant, and in 1969 Associate, Group Leader of the Array Radars Group of Lincoln Laboratory.

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



Ian Whiteley (S'65-A'67) was born in Huddersfield, Yorkshire, England, on May 23, 1943. He received the B.Sc. and Ph.D. degrees, both in electrical engineering, from the University of Leeds, Yorkshire, England, in 1964 and 1968, respectively.

In 1967 he joined the Microwave Techniques Group, the Plessey Company Ltd., Romsey, Hampshire, England, where he has been concerned with the evaluation of microstrip transmission line parameters, and applications to microwave components realized in this medium.

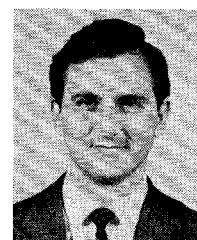
Dr. Whiteley is an associate member of the Institute of Electrical Engineers (London).

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David C. Rickard was born in Callington, Cornwall, England, on June 3, 1934. He received the B.Sc.(Eng.) degree in electrical engineering from the University of London, England, in 1955.

From 1955 to 1958 he was at University College, London, engaged in research on low-loss waveguide for trunk communication. From 1958 to 1963 he was a Research Engineer at Associated Electrical Industries Re-



G. N. Tsandoulas (S'65-M'67) was born in Preveza, Greece, on August 14, 1939. He attended the Phillips Exeter Academy, Exeter, N. H., and received the B.A. and B.S.E.E. degrees from Harvard University, Cambridge, Mass., in 1961 and 1963, respectively, and the Ph.D. degree from the University of Pennsylvania, Philadelphia, in 1967.

From 1963 to 1964 he was with KEL



Frank G. Willwerth (M'67) was born in Cambridge, Mass., on November 11, 1944. He received the B.S. degree in electrical engineering from Tufts University, Medford, Mass., in 1966.

From 1966 to 1968 he was with Sylvania Electric Co., Waltham, Mass., working in the Antenna and Microwave Laboratory, where he was engaged in microwave integrated circuit development. In November 1968 he joined the Array Radars Group at M.I.T. Lincoln Laboratory.