

Contributors



Robert C. Clauss (A'72) was born in Pasadena, CA, on October 6, 1934. He attended Military Electronics Schools while serving in the U.S. Marine Corps. He received the A.A. degree from Pasadena City College in 1963.

Since 1959 he has been employed by the Jet Propulsion Laboratory, Pasadena. He is supervisor of the Microwave Electronics Group in the Telecommunications Science and Engineering Division. His work on low-noise receiving equipment includes the design and development of

cavity, traveling-wave and reflected-wave masers of frequencies from 1 to 40 GHz. He has received thirteen NASA monetary awards for new technology and has been granted 6 patents.



Hong-ih Cong was born in Taiwan, China, on October 14, 1946. He received the B.S. degree from National Tsing-hua University, Tsing-chu, Taiwan, in 1969, and the M.A., M.Ph., and Ph.D. degrees in physics from Columbia University, New York, NY, in 1972, 1974, and 1977, respectively.

Since 1977 he has been a Research Associate at NASA/Goddard Institute for Space Studies, New York, NY. Primarily a Radio Astronomer, studying the molecular distribution in the

Galaxy, he is also interested in microwave physics and devices, and has been involved in constructing and improving the 115-GHz receiver used on the Columbia-GISS 4-ft telescope.



Om P. Gandhi (S'57-M'58-SM'65) was born in Multan, West Pakistan, on September 23, 1934. He received the B.Sc. (Honors) degree in physics from Delhi University and the Diploma in Electrical Communication Engineering from Indian Institute of Science, Bangalore, in 1952 and 1955, respectively. Continuing his graduate studies at the University of Michigan, Ann Arbor, he obtained the M.S.E. and Sc.D. degrees in electrical engineering in 1957 and 1960, respectively.

Subsequently, he worked at Philco Scientific Laboratory, Blue Bell, PA, on semiconductor plasmas. From 1962 to 1966 he worked at Central Electronics Engineering Research Institute, Pilani, India, first as Assistant Director and then as Deputy Director in charge of the Microwave Devices Group. Since 1967, he has been with the University of Utah, Salt Lake City, where he is a Professor of Electrical Engineering, and Research Professor of Bioengineering, with research interests in electromagnetic biological effects and biomedical applications of microwaves.

Dr. Gandhi is a member of Sigma Xi, Phi Kappa Phi, and Eta Kappa Nu.



M. J. Howes acquired his early education while working at a Government Fisheries Research Station. He received the B.Sc. and Ph.D. degrees from the University of Leeds, Leeds, England, in 1964 and 1967, respectively.

He is presently a Senior Lecturer in the Department of Electrical Engineering, University of Leeds. His research interests are in the areas of microwave devices and microwave subsystems in general, and his personal research work is currently associated with the circuit aspects of

transferred electron oscillators.



John H. Jacobi (M'77) was born in Houston, TX, on August 24, 1937. He received the B.S. degree from Rose-Hulman Institute of Technology, Terre Haute, IN, in 1959 and the M.S. degree from the University of Maryland, College Park, in 1969.

He has worked at Collins Radio Company, Ling-Temco-Vought and NASA Goddard Space Flight Center as a specialist in radio frequency circuit and system design. From 1969 to 1974, he worked for Hewlett-Packard in the field of

computer-aided data acquisition and control. In 1974, he joined Walter Reed Army Institute of Research, Washington, DC, where he is currently engaged in research on biological effects of electromagnetic radiation.



Kenneth M. Johnson (M'61-SM'78) was born in Detroit, MI, on October 13, 1935. He received the B.S. degree in physics from Wayne State University, Detroit, MI, in 1957, and did graduate work at San Diego State College, San Diego, CA, and at the University of California, Los Angeles.

From 1958 to 1960, he was with Hughes Aircraft Company doing advanced development work on parameter amplifiers and frequency multipliers. In 1960, he joined Texas Instru-

ments where he did research and development work on parametric devices, microwave solid-state sources, and Pockel's modulators and photodiode demodulators of light. Since 1972, he has been with Motorola, Inc., Scottsdale, AZ, doing advanced development work on various microwave active device circuits. He has authored a number of technical papers.

Mr. Johnson received the IEEE Browder J. Thompson Memorial prize paper award for his work on the avalanche photodiode in 1966. He is listed in the 1973 edition of *Engineers of Distinction* and in current editions of *Who's Who in the West*.



Anthony R. Kerr (S'64-A'66-SM'78) was born in England on August 30, 1941. He received the B.E., M.Eng.Sc., and Ph.D. degrees from the University of Melbourne, Australia, in 1964, 1967, and 1969, respectively.

In 1969 he joined the Commonwealth Scientific and Industrial Research Organization, Sydney, Australia, to develop low-noise receivers for radio astronomy. From 1971 to 1974 he worked on low-noise cryogenic receivers for millimeter-wave astronomy with the National

Radio Astronomy Observatory, Charlottesville, VA. He is presently with the NASA/Goddard Institute for Space Studies, New York, NY, developing low-noise receivers for millimeter and submillimeter wavelengths.

Dr. Kerr is a member of URSI Commission J and the Astronomical Society of Australia.

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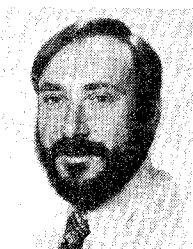
Norman S. Kopeika (S'67-M'71) was born in Baltimore, MD, on November 12, 1944. He received the B.S., M.S., and Ph.D. degrees in electrical engineering from the Moore School of Electrical Engineering, University of Pennsylvania, Philadelphia, in 1966, 1968, and 1971, respectively.

In 1972 he joined the Ministry of Defense, Government of Israel, where he started an electrooptics research and development group. In September 1973, he joined the Department of

Electrical Engineering of Ben Gurion University of the Negev, Beer-Sheva, Israel, where he heads the electrooptics program. His current interests include interactions of electromagnetic radiation with plasma, gas discharge detection of EM radiation, optical communication, atmospheric optics, nonoptical holography, and plasma and quantum electronics. He is currently spending the 1978-1979 academic year on sabbatical leave as Visiting Associate Professor in the Department of Electrical Engineering of the University of Delaware, Newark. He holds several patents and is the author or coauthor of over 35 research journal publications in the above fields.

Dr. Kopeika is a member of the Optical Society of America, Laser Institute of America, and the Electrooptics and Laser Society of Israel.

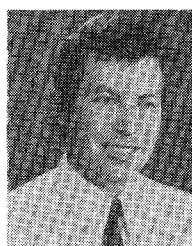
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Robert H. Lenox was born in Boston, MA, on March 4, 1943. He received the B.S. degree in life sciences from Massachusetts Institute of Technology, Cambridge, in 1964, and the M.D. degree from the University of Vermont College of Medicine, Burlington, VT, in 1968. In 1969 he completed an internship in medicine at the University of Kentucky Medical Center and from 1969 to 1972 he completed his residency in psychiatry at U.C.L.A. Neuropsychiatric Institute and Walter Reed Army Medical Center,

Washington, DC.

In 1972 he joined the Division of Neuropsychiatry at Walter Reed Army Institute of Research and was engaged in research related to the neurochemistry of the brain. During this period his work involved the development of techniques to optimize high-power *in vivo* microwave inactivation of enzymes in the central nervous system of animals. In 1975 he was appointed Assistant Chief of Neuroendocrinology. In 1977 he was appointed Director, Neurosciences Research Unit in the Department of Psychiatry at the University of Vermont College of Medicine, Burlington.



Yaakov Makover was born in Kfar Hess, Israel, on November 26, 1949. He received the B.Sc. degree in both electrical engineering and physics from Ben Gurion University of the Negev, Beer-Sheva, Israel, in 1976.

His senior project involved phaselocking of two X-band reflex klystrons and sensitivity measurement of commercial glow lamps in heterodyne receivers. As part of his master's degree research at the same institution he is applying this technique, using in a receiver a matrix of

such detectors, towards recording of very low-intensity microwave holograms in real time.

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Robert J. Mattauch (S'61-M'66) was born in Rochester, PA, on May 30, 1940. He received the B.S.E.E. degree from the Carnegie Institute of Technology, Pittsburgh, PA, in 1962, and the M.E.E. and Ph.D. degrees in electrical engineering from North Carolina State University, Raleigh, in 1963 and 1967, respectively. He was a Ford Fellow at North Carolina State University.

His research interests lie in the area of semiconductor materials and devices, with specific emphasis on III-V compounds and millimeter-wave structures. He is presently a Professor of Electrical Engineering and Director of the Semiconductor Device Laboratory at the University of Virginia, Charlottesville.

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

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J. McBretney was born in Lincoln, England, on March 10, 1952. He received the B.Sc. degree in electrical and electronic engineering from the University of Leeds, Leeds, England, in 1973, and received the Ph.D. degree for a dissertation entitled "Galvanomagnetic Phenomena in Transferred Electron Devices" in 1977.

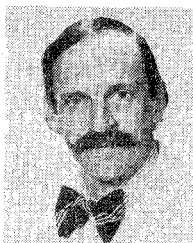
Since January 1977, he has been employed at the Admiralty Surface Weapons Establishment, Portsmouth, England, where he is working on advanced communications systems.

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Reza Mehran was born in Nadjafabad, Iran, on November 15, 1943. He received the Dipl. Ing. and Dr. Ing. degrees from the Technical University of Aachen, Aachen, Germany, in 1969 and 1974, respectively.

Since 1974, he has been working on microstrip circuit problems as a Research and Teaching Assistant at the Department of Electrical Engineering, University of Duisburg, Duisburg, Germany.



James L. Meyerhoff was born in Philadelphia, PA, on December 12, 1937. He received the B.A. degree in psychology in 1962 and the M.D. degree in 1966, both from the University of Pennsylvania, Philadelphia. He completed an internship at Misericordia Hospital in Philadelphia in 1967, a residency in psychiatry at the University of Chicago in 1970, and a fellowship in neuropharmacology at Johns Hopkins University, Baltimore, MD, in 1971.

Since 1971, he has been at the Walter Reed Army Institute of Research, Washington, DC, where he is currently Chief of the Neuroendocrinology and Neurochemistry Branch, Department of Medical Neurosciences, Division of Neuropsychiatry. He is Research Professor of Psychiatry at the Uniformed Services University School of Medicine, Bethesda, MD.

Dr. Meyerhoff is a member of the American Psychiatric Association, the Society for Neuroscience, and the International Society for Chronobiology.



Craig R. Moore (M'67) was born in Pittsburgh, PA, on May 19, 1939. He received the B.S.E.E. and M.S. degrees from Cornell University, Ithaca, NY, in 1962 and 1964, respectively.

Following graduation he was employed in design and development engineering on various command/control and communications projects with the Bunker-Ramo Corporation, Canoga Park, CA, and GTE Electronic Systems Div., Buffalo, NY. In 1970 he joined the National Radio Astronomy Observatory, Green Bank,

WV, where he had been responsible for development of low-noise microwave receivers, and supervision of electronics operations. In 1976 he assumed full-time responsibility for the development of maser amplifiers at NRAO.

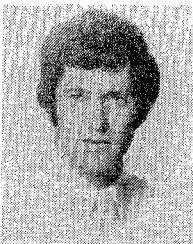


Marian W. Pospieszalski was born in Czeszochowa, Poland, on January 22, 1944. He received the M.Sc. and D.Sc. degrees in electronic engineering from the Warsaw Technical University, Warsaw, Poland, in 1967 and 1976, respectively.

Since 1967, he has been with the Institute of Electronics Fundamentals, Warsaw Technical University, where he is currently an Assistant Professor. While on leave during the academic year 1977-1978 he was first with the Electronics

Research Laboratory, University of California, Berkeley, and then with the National Radio Astronomy Observatory, Charlottesville, VA. His research interests are concerned with microwave circuit techniques, especially with applications of electromagnetic surface wave structures, and also with microwave low-noise receivers.

Dr. Pospieszalski is a member of the Polish Association for Theoretical and Applied Electrotechnics.



Shmuel Schonbach was born in Haifa, Israel, on January 22, 1943. He received the B.Sc. degree from the Faculty of Electrical Engineering in the Technion-Israel Institute of Technology in 1967.

From 1967 to 1969 he worked for the Government of Israel/Armament Development Authority. In 1969 he joined Elta Electronics Industries (subsidiary of Israel Aircraft Industries). During this period most of his professional efforts were devoted to the design and development of microwave components and

subsystems. He is currently in charge of the Microwave Laboratory in Elta.



Glenn S. Smith (S'65-M'72) was born in Salem, MA, on June 1, 1945. He received the B.S.E.E. degree from Tufts University, Medford, MA, in 1967, and the S.M. and Ph.D. degrees in applied physics from Harvard University, Cambridge, MA, in 1968 and 1972, respectively.

From 1969 to 1972 he was Teaching Fellow and Research Assistant in Applied Physics at Harvard University. From 1972 to 1975 he served as a Post-Doctoral Research Fellow at Harvard University and also as a part-time Research Associate and Instructor at Northeastern University, Boston, MA. He is presently an Assistant Professor of Electrical Engineering at Georgia Institute of Technology, Atlanta, GA.

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



V. C. Y. So was born in Hong Kong in September 1950. He received the B.Sc. and M.Sc. degrees in physics from the University of Toronto, Toronto, Ont., Canada, in 1974 and 1976, respectively. He is now working towards the Ph.D. degree at the University of Toronto.



G. I. Stegeman, photograph and biography not available at the time of publication.



G. A. Teh was born in Kluang, Johore, Malaysia, on October 14, 1949. He received the B.Sc. and Ph.D. degrees, both in electronic engineering, from the University College, London, England, in 1971 and 1974, respectively.

From 1974 to 1975 he was with RCA Research Laboratories, Ste. Anne de Bellevue, Que., Canada, where he worked on satellite communication systems. In 1976 he joined the Department of Physics, Nanyang University, Singapore, where he taught courses in Applied Physics and did research on integrated optics. In 1977 he spent three months as a Visiting Professor at the University of Toronto, Toronto, Ont., Canada. In 1978 he revisited the University of Toronto to engage in a research program supported by the Department of Communication, Ottawa, Canada. He won the IEE prize for the year 1971.



Te-Kao Wu (S'74-M'76) was born in Taiwan, China, on October 12, 1948. He received the B.S.E.E. degree from National Taiwan University in 1970, and the M.S.E.E. and Ph.D. degree from the University of Mississippi, University, in 1973 and 1976, respectively.

He was a Research Assistant and later a Research Associate in the Department of Electrical Engineering, University of Mississippi, from 1971 to 1978. Since September 1978, he has been working in Lockheed Missiles and Space Company, Inc., as a Scientist Associate—Research. His areas of interest are electromagnetic scattering, antennas, microwaves, EMC, and EMP problems.

Dr. Wu is a member of Eta Kappa Nu, Phi Kappa Phi, and Sigma Xi.