

# Contributors



**Sheel Aditya (S'75)** was born in Delhi, India, on December 23, 1952. He received the B.Tech. degree in electrical engineering from Indian Institute of Technology, Delhi, India, in 1974. He has also been working towards Ph.D. and is due to submit shortly a thesis on a planar helical slow-wave structure.

Since July 1974 he has been with the Centre for Applied Research in Electronics, Indian Institute of Technology, Delhi, working on microstrip circuits and MIC fabrication.

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**Rajendra K. Arora (S'64-M'65-SM'74)** was born in New Delhi, India, on December 30, 1936. He received the B.Sc.(Hons.) degree in physics from the University of Delhi, St. Stephen's College, Delhi, India, in 1956, the Diploma of the Indian Institute of Science, Bangalore, India, in electrical communication engineering in 1959, and the Ph.D. degree in electrical engineering from the University of St. Andrews, Queen's College, Dundee, United Kingdom, in 1965.

He joined the faculty of the University of Roorkee, Roorkee, India, in 1959, studied in the United Kingdom on a Commonwealth Scholarship for the Ph.D. degree (1962-1965), and returned to the University of Roorkee where he was appointed Professor in 1969. Since 1972 he has been working as a Professor at the Indian Institute of Technology, New Delhi, and is currently the Chairman of the Communication Group in the Department of Electrical Engineering. He served as the Dean of Students at I.I.T. during the year 1976-1977 and spent the year 1977-1978 as a National Research Council Visiting Scientist at the National Oceanic and Atmospheric Administration, Environmental Research Laboratories, Boulder, CO. His research interests are in the areas of electromagnetic theory, microwaves, antennas, tropospheric wave propagation and phased array radar. He has been the Principal Investigator of several research and development projects in these areas.

Professor Arora is currently President of the IEEE Delhi Section. He is a member of the Institution of Electrical Engineers London, and a fellow of the Institution of Electronics and Telecommunication Engineers, New Delhi, and a Life Member of the Indian Society for Technical Education, New Delhi. He is the recipient of the University of Roorkee Khosla Research Award and other research prizes.

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**Peter W. Barber (M'74)** was born in Anchorage, AK, on September 5, 1942. He received the B.S. degree in electrical engineering from Washington State University, Pullman, in 1964, and the M.S. and Ph.D. degrees in engineering from the University of California, Los Angeles, in 1967 and 1973, respectively.

From 1964 to 1974 he was employed as an Electrical Engineer by the McDonnell Douglas Corporation, Long Beach, CA, where he was primarily engaged in the design of aircraft antennas.

Since July 1974, he has been associated with the University of Utah, Salt Lake City, where he is presently an Associate Professor in the

Departments of Bioengineering and Electrical Engineering. He is currently engaged in teaching and research in electromagnetic theory.

Dr. Barber is a member of Sigma Tau and Tau Beta Pi, and an associate member of Commission B, USNC/URSI.

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**Richard J. Collier** was born in Leicester, England, in 1940. He received the B.Sc. (Hons.) and Ph.D. degrees in electrical engineering at the University of Southampton, England, in 1963 and 1966, respectively.

From 1966 to 1968 he was a Research Fellow at the National Physical Laboratory, Teddington, England, where he worked on microwave measurements in chemical research. Since October 1968 he has been a Lecturer at the University of Kent at Canterbury, England, where his

research has been in the fields of microwave circuits and measurements, and the use of electromagnetic fields in medical electronics.

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**Carl H. Durney (S'60-M'64)**, for photograph and biography please see page 764 of the August 1979 issue of this TRANSACTIONS.

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**Nabil A. El-Deeb** was born in Cairo, Egypt, on January 26, 1943. He received the B.Sc. (Hons.) degree in electrical engineering from the Faculty of Engineering, Alexandria University, in 1964, and the M.Sc. degree in high-frequency measuring techniques from the Czechoslovak Institute of Metrology, Bratislava, Czechoslovakia, in 1976. Since November 1977 he has been engaged in research work leading towards the Ph.D. degree in electronics at the Electronics Laboratories, University of Kent at Canterbury, England.

From 1967 to 1975 he was a member of the teaching staff of the Electrical Engineering Department, Military Technical College, Cairo, Egypt.

**Fwu-Jih Hsu (S'77-M'77)**, for photograph and biography see page 550 of the May 1979 issue of this TRANSACTIONS.



**Magdy F. Iskander, (M'76)** for photograph and biography please see page 765 of the August 1979 issue of this TRANSACTIONS.



**Tatsuo Itoh (S'69-M'69-SM'74)**, for photograph and biography see page 550 of the May 1979 issue of this TRANSACTIONS.



**Siang Ping Kwok (M'74)** received the B.S.E.E. degree from the University of California, Berkeley, in 1965, the M.S.E. and M.A. degrees in physics, and the Ph.D. degree in electrical engineering from the University of Michigan, Ann Arbor, in 1968, 1970, and 1974, respectively.

From 1965-1967 he was employed at Motorola, involved in characterization of transistor, SCR, FET, and amplifier and mixer circuit design. From 1969-1974 he was a Research Assistant at the Electron Physics Laboratory, University of Michigan, where he worked with MOM detector, IMPATT, and BARITT devices. Since 1974 he has been employed with Hughes Research Center, Torrance, CA, where he has been involved with millimeter-wave integrated circuit, resistive gate SOS microwave switch, BARITT device, GaAs monolithic IC, and GaAs resistive gate switches. Presently he is heading the Special Devices Section in charge of the development of SOS and GaAs resistive gate microwave switches and associated monolithic IC.

Dr. Kwok was a recipient of Frank Kraft Award at the University of California, and both the Graduate Distinguished Achievement Award and a Rackham Pre-Doctoral Fellow at the University of Michigan. He is a member of Phi Kappa Phi, Eta Kappa Nu, and Sigma Xi.



**S. D. Malaviya (M'70)** received his Ph.D. in electronics from the University of Minnesota at Minneapolis.

He is currently working at IBM's Data Systems Division, East Fishkill, NY. He has wide experience in the areas of microwave transmission and reception, transmission-line effects in multiple-level integrated circuit packaging, and the design of integrated circuits and devices. He has several inventions and patents in these areas.

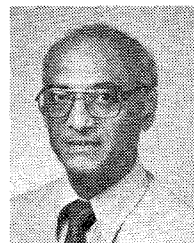
Dr. Malaviya is a member of the Electrochemical Society.

**Habib Massoudi (S'74-M'76)**, for photograph and biography please see page 765 of the August 1979 issue of this TRANSACTIONS.



**Christen Rauscher (S'73-M'75)** was born in Boston, MA, on November 4, 1944. He received the Diploma in electrical engineering and the Ph.D. degree in 1969 and 1975, respectively, both from the Swiss Federal Institute of Technology, Zurich, Switzerland.

From 1969 to 1976 he was employed as an Assistant and Research Associate at the Microwave Laboratory of the Swiss Federal Institute of Technology where he conducted research on computer-aided tolerance optimization of microwave active circuits and on IMPATT power amplifiers. He held a Post-Doctoral Fellowship from the Swiss National Science Foundation from 1976 to 1978. He spent this time at Cornell University, Ithaca, NY, and the Naval Research Laboratory, Washington, DC, investigating the nonlinear behavior of GaAs MESFET's and pursuing a new approach to the design of broad-band varactor-tuned oscillators. He is presently employed at the Naval Research Laboratory, Washington, DC, engaged in research on microwave and millimeter-wave nonlinear circuits.



**V. P. Singh** received the M.S. degrees in mathematics, statistics, and industrial engineering, and the Ph.D. degree in operational research from the Case Institute of Technology, Cleveland, OH.

Following that, he joined IBM, East Fishkill, where he is now Advisory Engineer in the memory development group. He has wide experience in the areas of stochastic processes, queueing, statistical quality control, data analysis, and simulation. His current interests are in CCD's

and RAM's.

Dr. Singh is a member of ASA, AAAS, and ORSA.



**Barry A. Syrett (S'71-M'76)** received the B.Eng. and M.Eng. degrees in electrical engineering from Carleton University, Ottawa, Ontario, Canada, in 1971 and 1973, respectively, and the Ph.D. degree in electrical engineering from the University of Alberta, Edmonton, Alberta, Canada, in 1976. He studied at the Microwave Institute Foundation, Stockholm, Sweden, during the summer of 1972, where he worked on the design and modeling of broad-band bias lines for active microwave devices operating in

X band. His Ph.D. thesis was concerned with the large-signal characterization of IMPATT diodes, the modeling of nonlinear distortion effects in

IMPATT-diode amplifiers, and the reduction of amplifier distortion by means of feed-forward linearization.

From 1976 to 1977, he was the Senior Research Engineer at the Applied Instrumentation Laboratory at Carleton University, working on the research and development of prototype electronic instrumentation systems. He joined the Department of Electronics at Carleton University, in 1977, as an Assistant Professor. His research interests include microwave communications electronics and circuits, applied instrumentation, and RF measurement techniques. From 1971 to 1975, he held a National Research Council of Canada postgraduate scholarship, and in 1976 he was the recipient of the Alberta Government Telephones Centennial Fellowship for study in telecommunications.

solid-state components for microwave and millimeter applications. From 1969 to March 1973, he was on the technical staff at RCA Laboratories, Princeton, N.J. His work at RCA was in the field of fabrication and characterization millimeter-wave solid-state devices, as well as IMPATT oscillator and amplifier circuit development.

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

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**Kenneth P. Weller** (S'63-M'69) was born in Paterson, N.J., on October 9, 1942. He received the B.S., M.S., and Ph.D. degrees from the University of California, Berkeley, in 1965, 1966, and 1969, respectively.

Since joining Hughes Aircraft Company in April 1973, he has been concerned with the development of millimeter IMPATT sources and power amplifiers for a variety of applications. He is currently head of the Advanced Component Section in the Torrance Research

Center, CA, which is engaged in the development of state-of-the-art



**Harry A. Willing** (A'54-M'58) received the B.S.E.E. degree from the University of Connecticut, Storrs, in 1952, and the M.S.E.E. degree from the University of Florida, Gainesville, in 1963.

From 1963 to 1967 he was with the Sperry Microwave Electronics Division, where he was engaged in the studies of microwave properties of ferrite materials and the microwave acoustic properties of various single-crystal media. From 1967 to 1971 he was with Texas Instruments,

Inc., where he was engaged in the design and development of MIC modules. From 1971 to 1975 he was with the Communications and Electronics Division, Martin Marietta Aerospace, where he designed solid-state RF power amplifiers for commercial microwave applications. He is presently with the Naval Research Laboratory, Washington, DC.