

# 1978 MTT Awards

G. P. RODRIGUE, FELLOW, IEEE

At the annual Symposium Banquet, MTT President Don Parker presented the following MTT Society awards announced in October of 1978:

Microwave Career Award—A. Gardner Fox

Microwave Prize— $\left\{ \begin{array}{l} \text{Daniel N. Held} \\ \text{Anthony R. Kerr} \end{array} \right.$

Microwave Application Award—Dale H. Claxton.

IEEE Executive Vice President Leo Young presented Fellow Certificates to Professor Fred S. Rosenbaum and Dr. Robert A. Pucel. Two former members of ADCOM, H. Warren Cooper and Leo Young, were named as recipients of Distinguished Service Awards.

## MTT SOCIETY AWARDS

### Microwave Career Award

The Microwave Career Award is presented aperiodically to an individual for a career of meritorious achievement and outstanding technical contributions in the field of microwave theory and techniques. A. Gardner Fox was named in 1978 to receive the Microwave Career Award in recognition of his extensive contributions over a period of some 40 years.

Mr. Fox began his microwave activity at Bell Laboratories before World War II, and was a major contributor to the microwave ferrite field. With the passage of time, his activities migrated to successively higher frequency ranges, microwaves, millimeter waves, and optics. He served as Editor of the IEEE JOURNAL OF QUANTUM ELECTRONICS for that Council from 1970 to 1977, and received the first Quantum Electronics Award. His Career Award Citation reads "For contributions to waveguide, antenna, nonreciprocal and laser devices." As recipient of the Microwave Career Award, Mr. Fox received a certificate, a plaque and a check for \$500. Further biographical information on Mr. Fox is given below.

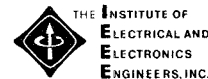


A. Gardner Fox (A'40-SM'45-F'56-LF'78) was born in Syracuse, on November 22, 1912. He received the B. S. and M. S. degrees in electrical engineering from the Massachusetts Institute of Technology, Cambridge, in 1935.

He has been a member of the technical staff of the Bell Laboratories since 1936. His early work was concerned with shortwave radio transmitters and an early radar project. In 1939, he joined the Radio Research Department at the Holmdel Laboratory where he engaged in research on waveguides. During World War II he was concerned with the design of microwave radar antennas and filters at the Whippany Laboratory. In 1944, he returned to Holmdel where he took part in the pioneering of the Bell System's first microwave radio-relay system, and later engaged in millimeter-wave research. From 1953, he was in charge



May 1, 1979



Microwave Theory and Techniques Society  
1978 Microwave Career Award

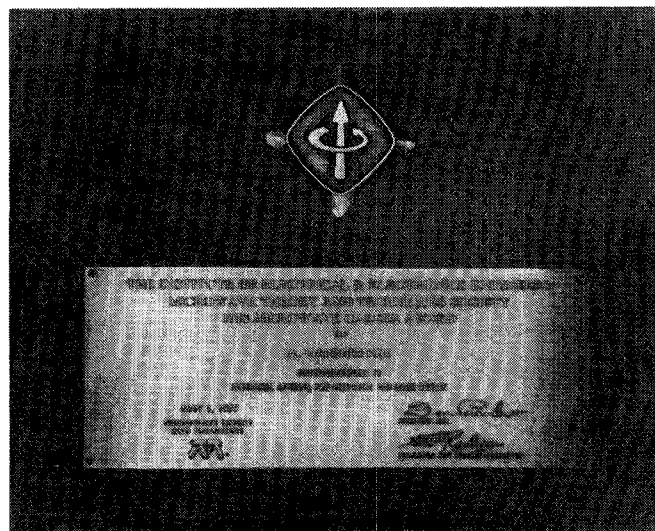
to

A. Gardner Fox

for contributions to waveguide,  
antenna, non-reciprocal and  
laser devices.

Don Parker — G. P. Rodrigue  
President, MTT Chairman  
MTT Awards Committee

MICROWAVE THEORY  
AND TECHNIQUES



of the Department of Microwave Physics doing device research on ferrites, dielectrics, and semiconductors. In 1959, he became interested in the efforts to produce an optical maser, and turned his attention to the theory of optical resonators. He then headed the Department of Coherent Wave Physics which has been involved in research on lasers, modulators, and nonlinear optics. From February 1976 till his retirement in 1978, he was Head of the Department of Radio Systems Research. He holds 53 patents in the microwave and quantum electronics fields.

Mr. Fox has served on a number of IEEE technical and conference committees. He was an Associate Editor of the IEEE JOURNAL OF QUANTUM ELECTRONICS from 1965 to 1970, and served as its Editor until 1977. He was made a Fellow of the IRE in 1956 for his microwave contributions, and in 1977 was elected a Fellow of the Optical Society of America. In 1978, he was recipient of the first Quantum Electronics Award given by the IEEE Quantum Electronics and Applications Society.

### Microwave Prize

The Microwave Prize is awarded annually for the paper making the most significant contribution in the field of interest to the Society among those published in an official IEEE publication during the year ending June 30th. The 1978 Microwave Prize was awarded for the paper "Conversion Loss and Noise of Microwave and Millimeter-wave Mixers: Part I—Theory, Part II—Experiment," published in the IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol. MTT-26, February 1978.

The authors, Daniel N. Held and Anthony R. Kerr, each received a certificate and a check for \$150.00.



### Microwave Theory and Techniques Society 1978 Microwave Prize

to  
D. N. Held  
A. R. Kerr

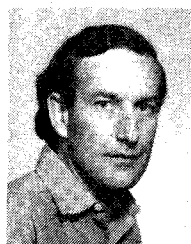
for a very significant contribution to the field of endeavor of the IEEE MTT Society in their paper entitled Conversion Loss and Noise of Microwave and Millimeter-Wave Mixers: Part I—Theory, Part II—Experiment published in the IEEE Transactions on Microwave Theory and Techniques, Volume MTT-26, Number 2, February 1978.



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Don Barker President, MTT  
D. N. Held Chairman, MTT Awards Committee

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**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 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.



**Daniel N. Held (S'67-M'68)** received the B. S., M. S. and Sc.D. degrees from Columbia University, New York, NY, in 1968, 1971, and 1977, respectively. From 1968 to 1971 he was with Bendix Corporation's Navigation and Control Division, where his responsibilities included electrooptics and star tracker system design. From 1971 to 1973, he was with the Columbia Astrophysics Laboratory where he was involved in nuclear electronics and satellite system design. In 1973, he joined the Goddard Institute

for Space Studies, where he supervised the design, development, and implementation of a millimeter-wave radiotelescope and he did research of millimeter-wave mixers. He is at present a Supervisor of Planetary Synthetic Aperture Radar Systems Group at Jet Propulsion Laboratories, where he has been working since 1977. He is participating in the design of several new SAR missions, including the Venus Orbital Imaging Radars.

### Microwave Application Award

The Microwave Application Award is presented aperiodically to an individual for an outstanding application of microwave theory and techniques. Dale H. Claxton, who has been with TRW since 1973, was named in 1976 to receive this award for his development of silicon and GaAs microwave analog and digital integrated circuits. Mr. Claxton received a certificate and a check for \$100. A photograph of his certificate showing the full citation and a brief biography of Mr. Claxton follows.



### Microwave Theory and Techniques Society 1978 Microwave Application Award

to  
Dale H. Claxton

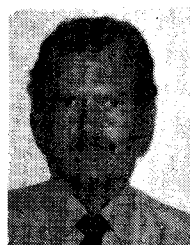
for the development of silicon  
and GaAs microwave analog  
and digital integrated circuits.



May 1, 1979

Don Barker President, MTT  
D. N. Held Chairman, MTT Awards Committee

MICROWAVE THEORY  
AND TECHNIQUES



**Dale H. Claxton (M'74)** was born in Stapleton, Staten Island, NY on June 11, 1943. He received the B. S. and M. S. degrees in electrical engineering from the University of California, Los Angeles, in 1972 and 1974, respectively. He joined TRW Defense and Space Systems Group in April 1973, and is currently a Section Head in the Microwave Technology Department of the Communications and Antennas Laboratory. Since joining TRW, he has been involved in the research and development of microwave devices, circuits, and subsystems for high-performance communications systems. Areas of past and current research include broad-band low-noise IMPATT, bipolar and FET VCO's, bipolar transistor analog integrated circuits, GaAs transferred electron logic devices and FET's, high-speed digital and analog GaAs integrated circuits, and the systems applications of the above.

Mr. Claxton is a member of Tau Beta Pi and the Electron Devices, Solid-State Circuits and Microwave Theory and Techniques Societies of the IEEE.

### National Lecturer's Plaque

Charles A. Liechti, who was the 1978 MTT-S National Lecturer, was out of the country and unable to attend the banquet and to receive the National Lecturer's Plaque. By way of coincidence this plaque also failed to make it to the banquet. Since that time, however, it has been forwarded to Mr. Liechti.