

# 1980 MTT Awards

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AT THE annual Symposium Banquet, MTT-S President Fred Rosenbaum presented the following MTT Society awards announced in October of 1980:

Microwave Career Award—Kiyo Tomiyasu

Microwave Prize—Hatsuaki Fukui

Microwave Application Award—Julius Lange.

IEEE Division IV Director A. Schell presented the Fellow Certificate to Stephen Adam. L. R. Whicker, a former President of AdCom and H. E. Shrank, former Chairman of the Waveguide Standards Committee received Distinguished Service Awards.

## MTT SOCIETY AWARDS

### Microwave Career Award

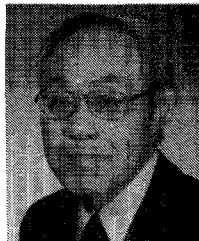
The Microwave Career Award is presented aperiodically to an individual for a career of meritorious achievement and outstanding technical contributions in the field of microwave theory and techniques. Dr. Kiyo Tomiyasu was named in 1980 to receive this award in recognition of his extensive contributions.

Dr. Tomiyasu began his microwave career at Sperry in 1949, and since 1955 has been with General Electric. He has made very significant contributions on ferrites, microwave components, spectroscopy, radiometers, lasers, microwave propagation effects, and for the past several years has been involved with satellite remote sensing of the earth with microwave sensors and synthetic aperture radar. He is an IEEE Fellow, and served as MTT-S AdCom Chairman in 1960 and Editor of the MTT Transactions 1957-1958 as well as Guest Editor in 1978. He has served IEEE TAB in several capacities and is an Honorary Life Member of MTT-S. In 1977 Dr. Tomiyasu received General Electric's highest technical award, the Charles Proteus Steinmetz Award, and in 1962 he received the Japanese American Citizens League Silver Medallion.

His total publications list over sixty papers and twenty patents have been issued in his name.

His Career Award Citation reads, "For a Career of Meritorious Achievement and Outstanding Technical Contributions in the Field of Microwave Theory and Techniques." As a recipient of the Career Award, Dr. Tomiyasu received a certificate, plaque, and a check for \$500. Further biographical information on Dr. Tomiyasu and a copy of his plaque follows.

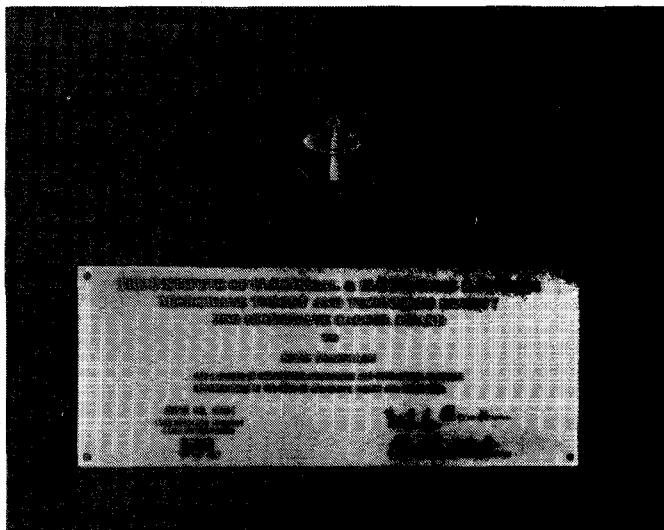
Kiyo Tomiyasu (S'41-A'42-M'49-SM'52-F'62) was born in Las Vegas, NV on Sept 25, 1919. He received the B.S. degree in electrical engineering from California Institute of Technology, Pasadena in 1940 and the M.S.



degree in communication engineering from Columbia University, New York, NY in 1941. He studied at Stanford University, Stanford, CA under a Low Scholarship, then entered Harvard University, Cambridge, MA., where he continued graduate work on a Gordon McKay Scholarship and received the Ph.D. degree in 1948.

He served as a Teaching Fellow, Research Assistant, and Instructor at Harvard University. In 1949 he joined the Sperry Gyroscope Company, Great Neck, NY as a Project Engineer and was promoted in 1952 to Engineering Section Head for Microwave Research. In 1955 he joined the General Electric Microwave Laboratory, Palo Alto, CA and five years later transferred to the General Electric Research Development Center, Schenectady, NY. In 1969 he became a Consulting Engineer at General Electric Valley Forge Space Center, Philadelphia, PA.

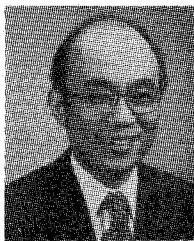
He is listed in *American Men of Science*, *Who's Who in Engineering*, *Men of Achievement*, *Leaders in Electronics*, and *Who's Who in the East*. He is a member of the American Physical Society.



### 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 30. The 1980 Microwave Prize was awarded for the paper "Design of Microwave GaAs MESFET's for Broad-band Low-Noise Amplifiers," *IEEE Trans. Microwave Theory Tech.*, vol. MTT-27, p. 643-650, July 1979.

The author Hatsuaki Fukui received a certificate and a check for \$300. A brief biography follows.



**Hatsuaki Fukui** (SM'69) was born in Yokohama, Japan. He was graduated summa cum laude in electrical engineering from Miyakojima Technical College, Osaka, Japan, and received the Doctor of Engineering degree in electrical engineering from Osaka University, Osaka.

From 1949 to 1954 he did research work on microwave electron tubes at Osaka City University, Osaka, and the following year joined the Shimada Physical and Chemical Industrial Company, Tokyo, Japan. In 1955 he joined Tokyo Tsushin Kogyo, Ltd. (the former name of Sony Corporation), Tokyo. Until 1960 he had headed a group developing new transistors for use in radio and television receivers, and then was in charge of the Esaki tunnel-diode operation in the Semi-Conductor Division. A year later he was appointed Manager of the Advanced Technology Department in the Engineering Division, concerned with future generations of consumer electronics products. In 1962 he joined Bell Telephone Laboratories, Murray Hill, NJ where he has worked on Ge and Si bipolar microwave transistors, GaAs bulk-effect devices Si avalanche diodes and their circuit applications, electro-optical devices, including storage tubes, cathode-ray tubes, phosphors, plasma display devices, Si diode-array camera tubes, and charge coupled imaging devices. He also supervised the development of new techniques for the vacuum-deposition of III-V compounds. Since 1973 he has been working on device modeling, designing, fabrication, characterization, and reliability. He is the author or coauthor of three technical books and some 60 articles in Japanese, and of approximately 40 technical papers published in English.

Dr. Fukui is a member of the Microwave Theory and Techniques Society serving on the Editorial Board, and a member of the Electron Devices Society serving for the IEEE Standards Committee (P642) on Microwave Transistors Characterization. He was a member of the Steering Committee of the Institute of Television Engineers of Japan from 1973 to 1974. He was a recipient of the Inada Award from the Institute of Electrical Communication Engineers of Japan in 1960. He has been listed in Marquis' *Who's Who in the World* and other biographical references.

#### *Microwave Applications Award*

The Microwave Applications Award is presented aperiodically to an individual for an outstanding application of microwave theory and techniques. Dr. Julius Lange

was named as the recipient of the 1980 Microwave Applications Award for his invention and development of the Interdigitated Microstrip Quadrature Hybrid, known more commonly as the Lange Coupler. Dr. Lange received a certificate and a check for \$100. A brief biography follows.



**Julius Lange** received the B.S. degree in engineering physics and the M.S. degree in physics from the University of Oklahoma, Norman, OK in 1959 and 1960, respectively and the Ph.D. degree in electrical engineering from Southern Methodist University, Dallas, TX in 1970.

Between August 1960 and June 1965, he was employed with the Semiconductor Device Development Department of Bell Telephone Laboratories, where he worked on microwave transistors.

From 1965 to 1970 he was associated with Texas Instruments, Incorporated as a Senior Member of the technical staff of the Semiconductor Research and Development Laboratory where he has had responsibility for the design and performance evaluation of microwave transistors and circuits. From 1971 to 1973, he was with the Advanced Development Department of the Radar Systems Division of Texas Instruments where he worked on varactor multipliers and parametric amplifiers. From February to October 1971, he was employed at Collins Radio as Senior Engineer in the Solid State Power Amplifier Advanced Development Group of the Telecommunications Systems Engineering Division. From 1973 to 1979, he was associated with the Western Laboratories Division of Ford Aerospace Corporation as Senior Engineering Specialist in circuit design and system analysis. His assignments included digital satellite communications receivers for rates up to 1000 megabits per second, an adaptive baseband equalizer, and computer aided design of GaAs FET amplifiers. In October 1979 he joined the Mobile Communications Business Division of the General Electric Company as Consulting Engineer. He is presently working on the AMPS cellular mobile telephone system.

Dr. Lange has published papers in the *Journal of Applied Physics*, the *IEEE Journal of Solid-State Circuits*, the *IEEE Transactions on Circuit Theory*, *IEEE Transactions on Microwave Theory and Techniques*, and the *IEEE Transactions on Electron Devices*. Dr. Lange has held the office of publicity chairman for the 1969 International Microwave Symposium and the office of program chairman for the Dallas GMMT chapter.