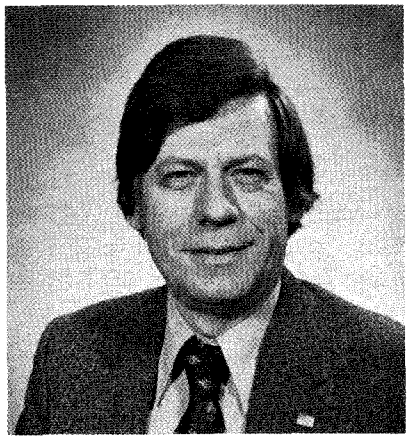
MICROWAVE APPLICATION AWARD



Julius Lange

For the development of the interdigital microstrip quadrature hybrid.

Julius Lange received his B.S. degree in Engineering Physics and his M.S. degree in Physics from the University of Oklahoma in 1959 and 1960, respectively. He received his Ph.D. in Electrical Engineering from Southern Methodist University in 1971.

In October 1979 Dr. Lange 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.

From 1973 to 1979, Dr. Lange 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 adoptive baseband equalizer, and computer aided design of GaAs FET amplifiers.

From 1971 to 1973, Dr. Lange joined 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, Dr. Lange was employed at Collins Radio as senior engineer in the Solid State Power Amplifier Advanced Development Group of the Telecommunications Systems Engineering Division.

From 1965 to 1970 he was associated with Texas Instruments Incorporated as a senior member of the technical staff of the Microwave Components Program Branch of the Semiconductor Research and Development Laboratory where he has had responsibility for the design and performance evaluation of microwave transistors and circuits. His assignments included: improved device analysis techniques involving correlation between physical structure and high frequency parameters; package and test fixture design; noise and S-parameters measurement techniques; computer aided device characterization; computer aided design of microwave wideband amplifiers, directional couplers and filters; design of microwave integrated circuits on ceramic substrates; and package design.

Between August 1960 and June 1965, Dr. Lange was employed with the Semiconductor Device Development Department of Bell Telephone Laboratories, where he worked on: fabrication of gallium arsenide transistors; Hall and resistivity measurements on thin films; radiation testing of transistors; design and testing of nanosecond switching circuits; and microwave transistor characterization.

Dr. Lange is a graduate of the "Communications Development Training Program" of Bell Telphone Laboratories, and of the "Modern Business Program" of the Alexander Hamilton Institute. He has published papers in the Journal of Applied Physics, and IEEE Journal of Solid-State Circuits, the IEEE Transactions on Circuit Theory, and 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 GMTT chapter.

He is married and has an eight year old daughter.