## MICROWAVE APPLICATIONS AWARD

The Microwave Applications Award was presented to E. G. Cristal for his recent contributions to the application of microwave theory and techniques to stripline and microstrip filter design. Dr. Cristal received a certificate and a cash sum of \$100. (A photograph of the certificate and Dr. Cristal's biography are shown.)



Microwave Theory and Techniques Society 1973 Microwave Application Award

Edward G. Cristal

for his recent contributions to the Application of Microwave Theory and Techniques to Stripline and Microstrip Filter Design.



AND TECHNIQUES





Edward G. Cristal (S'58-M'61-SM'66) was born in St. Louis, Mo., in January 1935. He received the B.S. and A.B. degrees in electrical engineering and mathematics and the M.S. degree in electrical engineering from Washington University, St. Louis, Mo., in 1957 and 1958, respectively, and the Ph.D. degree in electrical engineering from the University of Wisconsin, Madison, in 1961.

From March 1961 to January 1972 he was with the Electromagnetic Techniques Labora-

tory, Stanford Research Institute (SRI), Menlo Park, Calif. At SRI he participated in programs of applied research and development of microwave and UHF components, including filters, multiplexers, directional couplers, impedance matching networks, equalizers, and multipliers. From January 1972 to June 1973 he was Associate Professor of Electrical Engineering, McMaster University, Hamilton, Ont., Canada. He joined the Hewlett-Packard Laboratories, Palo Alto, Calif., in June 1973, where he is currently working in the area of telecommunications.

Dr. Cristal is a member of the IEEE Communications, Circuits and Systems, and Microwave Theory and Techniques Societies.