

B. E. Berson, Consulting in Technology	H. G. Oltman, Jr., Hughes Aircraft Co.
J. E. Degenford, Jr., Westinghouse Electric	J. M. Roe, McDonnell Douglas Corp.
V. G. Gelnovatch, U.S. Army ERADCOM	C. T. Rucker, Georgia Institute of Technology
P. T. Greiling, Hughes Aircraft Co.	B. E. Spielman, Naval Research Laboratory
R. B. Hicks, Rockwell International	D. Parker, Hughes Aircraft Co.
H. Howe, Jr., MA·Com, Inc.	S. F. Adam, Hewlett-Packard Co.
T. Itoh, University of Texas at Austin	F. J. Rosenbaum, Washington University
R. H. Knerr, Bell Telephone Laboratories	<i>(Past President 1979)</i>
H. J. Kuno, Hughes Aircraft Co.	<i>(Past President 1980)</i>
S. L. March, Compact Engineering	<i>(Past President 1981)</i>
E. C. Niehenke, Westinghouse Electric Corp.	
<i>Honorary Life Members:</i>	
	A. C. Beck
	S. B. Cohn
	D. D. King
	W. W. Mumford
	A. A. Oliner
	T. S. Saad
	K. Tomiyasu

1982 MTT-S Awards

H. SOBOL, FELLOW, IEEE

AT THE annual Symposium Banquet, MTT-S President Richard A. Sparks presented the following Society Awards:

Microwave Career Awards—Arthur A. Oliner
Akio Matsumoto

Microwave Prize—Kunikatsu Kobayashi
Yoshiaki Nemoto
Risaburo Sato

Microwave Applications—Charles R. Boyd, Jr.

The above awards which were first announced in October, 1981 are denoted as the 1982 Awards. This represents a change from the past when the awards were identified by the year of election, rather than the year of presentation as they are now.

President Sparks also announced the election of Leo Young as an Honorary Life Member of MTT-S, presented

the Past President's Pin to Fred Rosenbaum, the National Lecturer Award to Ferdo Ivanek, and Certificates of Recognition to Alvin Clavin and Don Parker for their leadership of the 1981 MTT-S Symposium, and to Robert E. Puttré for originating the MTT-S logo.

Kiyo Tomiyasu on behalf of the IEEE presented eight Fellow Certificates.

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. Two Career Awards were presented in 1982, to Dr. Arthur A. Oliner and to Dr. Akio Matsumoto, in recognition of their extensive contributions to the field.

Dr. Oliner began his microwave career in 1946 at the Polytechnic Institute of New York, (formerly called Polytechnic Institute of Brooklyn) and has remained at that institution through the present time. He has had a distinguished career in the microwave field for more than thirty years. His contributions have resulted in over one hundred published papers on microwave theory and techniques, antennas, electromagnetic waves, microwave acoustics, and optics. He has presented over one hundred and twenty technical talks in the U.S. and twenty foreign countries. He is the co-author or editor of three books on antennas and surface acoustic waves.

Professor Oliner has combined his academic career with consulting to industry and has worked in industry. His principal contributions have included theoretical work on waveguide and propagating structures, network characterization of propagating structures, measurements, leaky wave antennas, traveling wave antennas, array antennas, obstacles in waveguides, plasmas, Cerenkov radiation, acoustic waves, and optical phenomena.

He is a Fellow of IEEE and AAAS. Dr. Oliner was the first American to receive the Institution Premium of IEE (London), and was the recipient of a Guggenheim Fellowship. He received the Microwave Prize, National Lecturer, and Honorary Life Member Awards from MTT-S. Professor Oliner also received the Sigma Xi Citation for Distinguished Research and an Outstanding Educators of America Award.

He has lectured in Japan, Taiwan, Brazil, the Soviet Union, and Korea. Dr. Oliner has served on numerous IEEE, National, and International Committees and Panels as chairman and member. He was Chairman of MTT AdCom from 1959-60 and a member from 1955-71.

His Career Award Citation reads, "For a career of meritorious achievement and outstanding technical contributions in the field of microwave theory and techniques." As recipient of the Career Award, Dr. Oliner received a certificate, plaque, and check for \$1000. Further biographical information on Dr. Oliner and a copy of his plaque and certificate follows.

He is listed in "Who's Who in America," "Who's Who in the East," "Who's Who in Engineering," "Outstanding Educators of America," among other listings.



**Microwave Theory and Techniques Society
1982 Microwave Career Award**

to

Arthur A. Oliner

for a career of meritorious achievement and outstanding technical contribution in the field of microwave theory and techniques.



June 16, 1982

Richard A. Sponda *H. Sobol*
President, MTT *Chairman, MTT Award Committee*

MICROWAVE THEORY
AND TECHNIQUES



Arthur A. Oliner (M'47-SM'52-F'61) was born in Shanghai, China, of US parents on March 5, 1921. He received the B.A. degree from Brooklyn College in 1941 and the Ph.D. from Cornell University in 1946. He was a graduate teaching assistant and research assistant at Cornell from 1941-45.

He joined the Polytechnic Institute of Brooklyn in 1946 and served in various positions since that time including Research Associate, Research Professor, and Director of the Microwave Research Institute, Professor, and Head of the Department of Electrical Engineering and the Department of Electrophysics. He is currently Professor of Electrophysics and Director of the Microwave Research Institute. Dr. Oliner has held visiting Professorships at the University of Washington, Seattle, Catholic University of Rio de Janeiro, Brazil, and the Tokyo Institute of Technology, Japan.

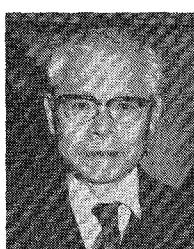
Dr. Matsumoto has had a distinguished career in the microwave field for more than 50 years. He has made very outstanding contributions on electrical networks and microwave filters. He published more than 30 papers and has 5 patents in the field. His contributions on the theory and design of electrical networks have included Doublet Filter, Rise and Sink Type Wave Separators, Pulse-Forming Networks, Filters with Small Phase Distortions. His contributions on the theory and design of distributed-constant networks and microwave filters, have included synthesis of lossless Multiport Networks with Multiwire Lines, Impedance Transformers, Balun Transformers, Hybrid Rings (or Rat-Race), Directional Couplers, Hybrid Power Dividers.

He is one of the pioneers of studies on distributed-constant networks, multiwire networks, and microwave circuits, and has edited "Microwave Filters and Circuits" published by Academic Press in 1970 as a chief author. He has also edited and published many "Monograph Series of the Research Institute of Applied Electricity, Hokkaido University," as a chief author.

Dr. Matsumoto won the Paper Prize of the IECE of Japan in 1941, and the Culture Prize of Hokkaido Newspaper Company for his contribution to science and technology in Hokkaido in 1967. He received the Medal of Honor of the IECE of Japan in 1972.

He has been involved with the IEEE, the IEE of Japan, and the Institute of Electronics and Communication Engineers of Japan. He has served the Japanese Governmental Committee of Radio Technology since 1949. He is a Fellow of IEEE.

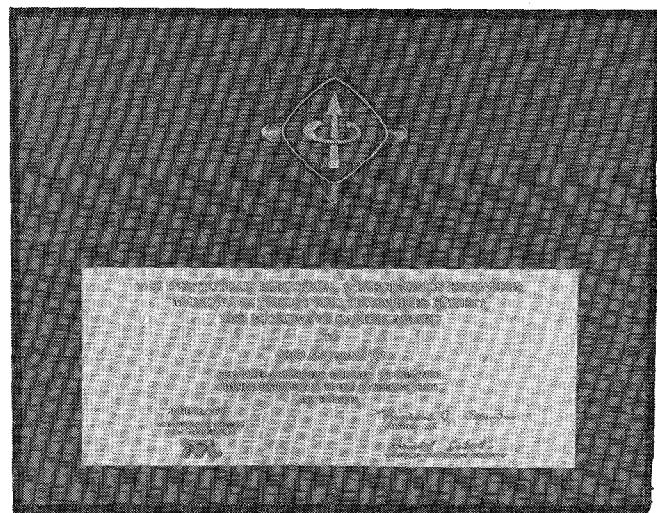
His Career Award Citation reads "For a career of meritorious achievement and outstanding technical contribution in the field of microwave theory and techniques." As a recipient of the Career Award, Dr. Matsumoto received a certificate, plaque, and check for \$1000. Further biographical information on Dr. Matsumoto and a copy of his plaque and certificate follows.



Akio Matsumoto (SM'62-F'74) was born on October 13, 1908 in Hokkaido, Japan. He received the B.E. degree from Hokkaido University, Japan, in 1931, and the D. Eng. from Tohoku University in 1942.

From 1931 to 1939 he was an Engineer with the Japanese Ministry of Communications and Furukawa Electrical Company. From 1939 to 1947 he was employed by the Kokusai Denki Tsushin Company, as Chief Engineer, and Director of the Research Laboratory. He returned to

Hokkaido University in 1947 and served as Professor and Director of the Research Institute of Applied Electricity until 1970 when he became President of the Kitami Institute of Technology, Kitami, Japan. He retired in 1978 and is currently Professor Emeritus and President Emeritus of Kitami Institute of Technology. He spent 1961-62 as a Visiting Professor at the Polytechnic Institute of Brooklyn.



June 16, 1982

Richard A. Sponza
President, MTT

H. Sabot
Chairman, MTT Awards Committee

MICROWAVE THEORY
AND TECHNIQUES



Microwave Theory and Techniques Society 1982 Microwave Career Award

to

Akio Matsumoto

for a career of meritorious achievement and outstanding technical contribution in the field of microwave theory and techniques.

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 IEEE publication during the year ending June 30. The 1982 Microwave Prize was awarded for the paper "Kuroda's Identity for Mixed Lumped and Distributed Circuits and Their Application to Nonuniform Transmission Lines," Transactions MTT-S, vol. MTT-26, pp. 81-86, Feb. 1981.

The authors Kunikatsu Kobayashi, Yoshiaki Nemoto, Risaburo Sato each received a certificate and a check for \$100. A biography of each author and a copy of the certificate follows.



Kunikatsu Kobayashi was born in Yamagata, Japan, on December 22, 1943. He received the B.E. and M.E. degrees from Yamagata University, Yonezawa, Japan, in 1966 and 1971, respectively.

From 1971 to 1975 he had been a Research Associate with the Faculty of Engineering, Yamagata University, and in 1975 he became a Lecturer at the same university. He has been engaged in research works in mixed lumped and distributed networks.

Mr. Kobayashi is a member of the Institute of Electronics and Communication Engineers of Japan.



Yoshiaki Nemoto (S'72-M'73) was born in Sendai City, Miyagiken, Japan on December 2, 1945. He received the B.E., M.E., and Ph.D. degrees from Tohoku University, Sendai, Japan, in 1968, 1970, and 1973, respectively.

Since 1973 he has been a Research Associate with the Faculty of Engineering, Tohoku University. He has been engaged in research works in the distributed networks and computer networks using the satellite.

Dr. Nemoto is a member of the Institute of Electronics and Communication Engineers of Japan.



Risaburo Sato (SM'62-F'77) was born in Furukawa City, Miyagiken, Japan on September 23, 1921. He received the B.E. and the Ph.D degrees from Tohoku University, Sendai, Japan in 1944 and 1952, respectively.

From 1949 to 1961 he was an Assistant Professor at Tohoku University, and in 1961 he became a Professor in the Department of Electrical Communications at the same university. Since 1973 he has been a Professor in the Department of Information Science at Tohoku University. From 1969 to 1970 he was an International Research Fellow at Stanford Research Institute, Menlo Park, CA. His research activities include studies of multiconductor transmission systems, distributed transmission circuits, antennas, communication systems, active transmission lines, magnetic and ferroelectric recording, neural information processing, computer networks, and electromagnetic compatibility. He has published a number of technical papers and some books in these fields including *Transmission Circuit*.

Dr. Sato was Vice President of the Institute of Electronic and Communication Engineers of Japan from 1974 to 1976. He has been Radio Technical Council Commissioner of the Ministry of the Post and Telecommunications of Japan since 1974, a member of the Telecommunication Technology Consultative Committee at NTT since 1976, and a member of Science Council of Japan since 1978. He is also a member of the Institute of Electronics and Communication Engineers of Japan, the Institute of Television Engineers of Japan, and Information Processing Society of Japan.



and the M.S.E.E. and Ph.D. degrees from Syracuse University in 1962 and 1964, respectively.

He was employed by Westinghouse from 1953 to 1956, General Electric from 1956 to 1964, and Rantec from 1965 to 1967. He was with UCLA from 1967 to 1970, and since 1969 has been the President and Technical Director of Microwave Applications Group.

Dr. Boyd has made many significant device contributions that have led to wide application of microwave ferrite devices in systems.



Microwave Theory and Techniques Society 1982 Microwave Application Award

to

Charles R. Boyd, Jr.

for advancing the state-of-the-art of microwave ferrite devices and the application of these devices to ferrite control elements.



June 16, 1982

Richard A. Sprole
President, MTT

H. S. Golombok
Chairman, MTT Awards Committee

MICROWAVE THEORY
AND TECHNIQUES



Honorary Life Member

Honorary Life Members of MTT-S are elected by AdCom in recognition of outstanding technical contributions, service to the profession, MTT-S, and IEEE. An Honorary Life Member is entitled to all discussion and voting privileges on matters before AdCom, except on elections, and many serve on MTT-S AdCom Standing Ad Hoc Committees. Society fees are paid from the Society Treasury. Prior to 1982, ten Honorary Life Members were elected.

Dr. Leo Young was elected Honorary Life Member at the June 13, 1982, meeting of AdCom. As a recipient of this election, Dr. Young will receive a certificate. A biography of Dr. Young follows.



June 16, 1982

Richard A. Sprole
President, MTT

H. S. Golombok
Chairman, MTT Awards Committee

MICROWAVE THEORY
AND TECHNIQUES



Microwave Applications Award

The Microwave Applications Award is presented aperiodically to an individual for an outstanding application of microwave theory and techniques. Dr. Charles R. Boyd, Jr., was named recipient of the 1982 Microwave Applications Award for advancing the state-of-the-art of microwave ferrite devices and the application of these devices to ferrite control elements. Dr. Boyd received a certificate and a check for \$300. A brief biography and copy of the certificate follows.

Charles R. Boyd, Jr. (S'52-M'58-SM'63) was born Oct. 1932. He received the B.S.E.E. degree from Carnegie Institute of Technology in 1953,



Leo Young (M'54-SM'56-F'68) was appointed Director for Research and Technical Information in the Office of the Secretary of Defense, in November 1981. Previously he served as Associate Superintendent of the Electronics Technology Division of the Naval Research Laboratory (NRL), which he joined in January 1973.

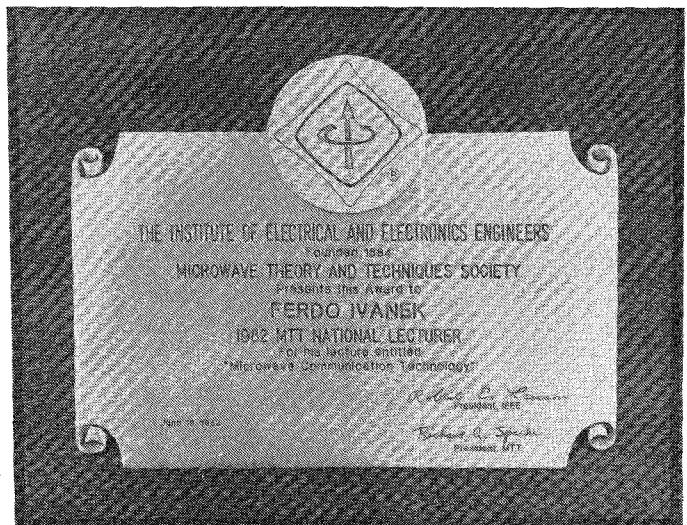
He has worked in industry (Westinghouse Electric Corporation, 1953-60; Decca Radar, 1951-53; A. C. Cossor, 1948-51), was Staff Scientist and Program Manager in an independent research laboratory (Stanford Research Institute, 1960-73), and Research

Engineer and Manager in a government laboratory (NRL, 1973-81). He has taught courses at American universities (Stanford University, George Washington University) and at universities abroad (Visiting Professor at Leeds University, England, in 1966; at the Technion, Haifa, Israel, in 1970/71; and under AGARD auspices at the University of Bologna, Italy, in 1971).

He earned the Doctorate degree in electrical engineering in 1959 from the Johns Hopkins University, Baltimore, MD, where he held the Benjamin Garver Lamme Scholarship. He also received two honors degrees, one in physics and one in mathematics, from Cambridge University, England, where he held a Major Open Scholarship in Mathematics. He has published more than one hundred papers and technical contributions in electronics and optics, and holds twenty patents. He has authored, coauthored, or edited 14 books.

Dr. Young was elected Fellow of the Institute of Electrical and Electronics Engineers in 1968, and Fellow of the American Association for the Advancement of Science (AAAS) in 1979. He was IEEE National Lecturer in 1968. He received the IEEE Microwave Society's Microwave Prize in 1963 and Distinguished Service Award in 1979, and the IEEE United States Activities Board Citation of Honor in the same year. He has served on several Commissions of the International Union of Radio Science (URSI) since the early sixties, and was the Navy representative on the U.S. National Committee of URSI from 1979 to 1981. Dr. Young was elected 1980 President of the IEEE which has 220,000 members worldwide. He served as Executive Vice President in 1979, and was elected four times to the IEEE Board of Directors. In 1980 he also served as a member of the Board of Governors of the American Association of Engineering Societies (AAES).

the MTT Society, and is currently Chairman of the Microwave Systems Committee (MTT-16). He also serves on the IEEE Solid-State Circuits Council as representative of the Communications Society. His active participation in the CCIR includes the first chairmanship of the Study Group 9 Working Group on Radio-Relay Systems for Developing Countries. He published over 40 articles and one book chapter, and holds one patent.



National Lecturer

The IEEE MTT-S National Lecturer is selected annually by AdCom to present a lecture to MTT-S Chapters on a subject of important and current interest to members. The National Lecturer must be an individual who has made significant contributions in the field of his talk. The 1982 National Lecturer was Ferdo Ivanek. The title of his lecture is "Microwave Communication Technology". At this point in time, Dr. Ivanek has presented his talk twenty-eight times. A brief biography and photograph of his plaque follows.



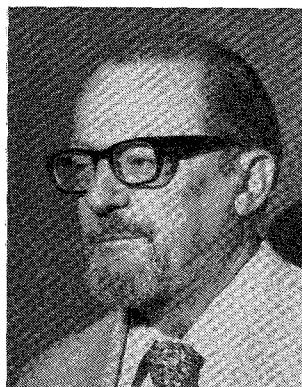
Ferdo Ivanek (SM'60) is Manager, Microwave Radio and Multiplex Development at the Farinon Electric Operation of the Harris Corporation, San Carlos, CA. His previous associations in California include the Fairchild R & D Laboratory and the Microwave Laboratory at Stanford University.

Born in Yugoslavia, he obtained his Dipl. Ing. and Dr. techn. degrees in electrical engineering from the Technical University of Vienna, Austria in 1948 and 1965, respectively. His consecutive associations with the R & D laboratories of the Yugoslav Broadcasting and PTT organizations, and of the Iskra Corporation included management in planning the first major Yugoslav radio-relay link, and in developing the first domestically manufactured microwave communication equipment. He also taught at the EE Department, Split, of the University of Zagreb, where he was appointed as Associate Professor.

Dr. Ivanek is a Senior Member of the IEEE and a member of the Sigma Xi Society. He served as Chairman of the Santa Clara Valley Chapter of

IEEE Fellows

The following members of MTT-S were elected Fellows of IEEE and chose to have their Fellow Certificates presented during the 1982 Symposium.



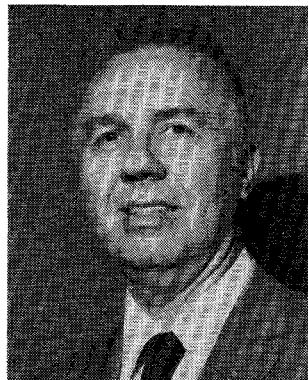
For pioneering work on microwave Ferrites and Ferrite Devices

Kenneth J. Button



Vladimir G. Gelnovatch

For contributions to the field of microwave circuit design and optimization.



James Walter Gewartowski

For contributions to microwave solid-state circuits



Samuel Hopfer

For contributions to microwave components and instruments, especially to wideband power measuring devices.



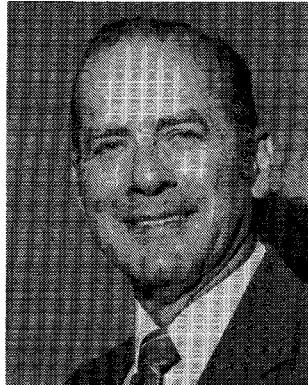
Don Parker

For technical direction of the development of high-power solid-state sources.



Tatsuo Itoh

For contributions to dielectric and printed waveguide technology for millimeter wave integrated circuits.



Charles Rucker

For contributions to the development of techniques for power combining of microwave semiconductor devices.