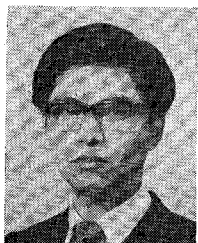


## Contributors

**John W. Bandler** (S'66-M'66), for a photograph and biography please see page 195 of the February 1972 issue of this TRANSACTIONS.



**Christakis Charalambous** (S'72), for a photograph and biography please see page 632 of the September 1972 issue of this TRANSACTIONS.



**Yoshimasa Daido** was born in Tokyo, Japan, on April 4, 1943. He received both the B.S. and M.S. degrees in electrical engineering both from Tokyo Institute of Technology, Tokyo, Japan, in 1968 and 1970, respectively.

He joined the Radio Transmission Laboratory, Fujitsu Laboratories, Ltd., Kawasaki, Japan, in 1970, where he has been engaged in research of microwave oscillators and amplifiers using Gunn and IMPATT diodes and computer analysis of active device circuits.

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



**George I. Haddad** (S'57-M'61-SM'66-F'72), for a photograph and biography please see page 196 of the February 1972 issue of this TRANSACTIONS.



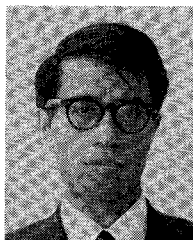
**Mitsuru Igarashi** was born on October 8, 1932, in Tokyo, Japan. He received the B.S. degree in electrical engineering from Yokohama National University, Yokohama, Japan, in 1969, and the M.S. degree in electronic engineering from Tokyo Institute of Technology, Tokyo, Japan, in 1972. He is currently a doctoral student at Tokyo Institute of Technology.



**Yukio Ito** (SM'71) was born in Iwate, Japan, on March 30, 1934. He received the B.S. degree in electrical engineering from Waseda University, Tokyo, Japan, in 1956.

From 1956 to 1961 he was with the Radio Transmission Engineering Department, Fujitsu, Ltd. In 1962 he joined the Radio Transmission Laboratory, Fujitsu Laboratories, Ltd., Kawasaki, Japan, and is now a Chief Engineer of the Microwave Components and Circuits Section. From 1956 to the present he has been engaged in the research and development of microwave components and circuits, e.g., ferrite devices (isolator, circulator and switch), tunnel-diode and transistor amplifiers, frequency converters (receiving mixer and transmitting up-converter), Gunn- and avalanche-effect oscillators and amplifiers, filters, branching networks, and microwave integrated circuits.

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



**Hidemitsu Komizo** was born in Tokyo, Japan, on December 3, 1939. He received the B.S. degree in electrical engineering from the University of Electro-Communications, Japan, in 1962.

In 1962 he joined the Radio Transmission Laboratory, Fujitsu Laboratories, Ltd., Kawasaki, Japan. He has been engaged in the research and development of microwave components and circuits, such as circular waveguide transmission circuits, filters, tunnel-diode and transistor amplifiers, and frequency converters. He is currently working on Gunn- and avalanche-diode oscillators and amplifiers, and microwave integrated circuits.

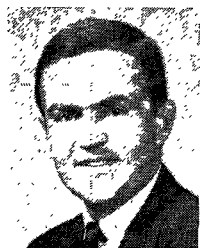
Mr. Komizo is a member of the Institute of Electronics and Communication Engineers of Japan.



**Masahiko Kudo** was born in Hokkaido, Japan, on June 17, 1933. He received the B.Sc. degree in physics from Hokkaido University, Sapporo, Japan, in 1960.

Since 1960 he has been employed by Nippon Telegraph and Telephone Public Corporation, Japan. From 1964 to 1966 he worked for the construction of microwave equipments at the Microwave Division. From 1967 to 1970 he was with the Satellite Communication Section, Electrical Communication Laboratory, Musashino City, where he was researching satellite and earth station for the domestic satellite communication. Since 1971 he has been working for the experimental earth station for the domestic satellite communication at the Microwave Division, as a Staff Engineer.

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

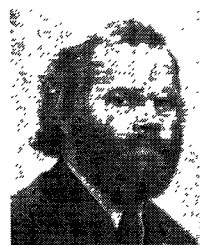


**Nino A. Masnari** (S'61-M'64-SM'70) was born in Three Rivers, Michigan, on September 20, 1935. He received the B.S., M.S., and Ph.D. degrees in electrical engineering, all from the University of Michigan, Ann Arbor, in 1958, 1959, and 1964, respectively.

He was employed by the Electron Physics Laboratory of the University of Michigan from 1957 to 1967, during which time he did research on electron beams, microwave tubes, and microwave measurements. In 1967 he

joined the General Electric Research and Development Center in Schenectady, N. Y., as a Research Engineer in the Plasma Physics Branch. His work at General Electric included plasma physics, high-current metal-vapor arcs, and cathode-spot phenomena. Since 1969 he has been an Associate Professor of Electrical Engineering and a member of the Electron Physics Laboratory at the University of Michigan. His present research activities involve the fabrication, testing, and evaluation of solid-state materials and devices. He has developed an ion implantation facility which is being used for studying the characteristics of implanted layers in semiconductor materials.

Dr. Masnari is a member of Sigma Xi, Tau Beta Pi, Eta Kappa Nu, and Phi Kappa Phi.



**Bruce H. McDonald** (S'62-M'68) was born in Winnipeg, Manitoba, Canada, on May 3, 1942. He received the B.Sc. degree in engineering physics, in 1964, and the M.Sc. degree in computer science, in 1969, both from the University of Manitoba, Winnipeg, Manitoba, Canada. He is currently completing the Ph.D. degree requirements in electrical engineering at the same university.

From 1964 to 1966 he was employed first as a Programmer Analyst, and later as a Project Leader, in Mineral Resources by the Government of Saskatchewan Computer Centre at Regina. From 1966 to 1968 he worked on a hospital automation project at the Victoria General Hospital in Winnipeg, where he designed and implemented pilot data-acquisition and processing systems. In 1968 he returned to full-time study, involving design and simulation of computer operating systems, and currently the application of digital-computing techniques in the solution of electromagnetic-field problems.

Mr. McDonald was chairman of the Winnipeg section of the IEEE from 1970 to 1971.



**Takeshi Meguro** was born in Miyagi, Japan, on October 28, 1941. He received the B.S. degree in electrical engineering from Tokyo Electrical Engineering College, Tokyo, Japan, in 1969.

In 1966 he joined the Radio Transmission Laboratory, Fujitsu Laboratories, Ltd., Kawasaki, Japan, and has been engaged in the research and development of microwave components and circuits, such as filters, transistor amplifiers, frequency converters, and inte-

grated circuits. He is currently working on Gunn- and avalanche-diode oscillators and amplifiers.

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

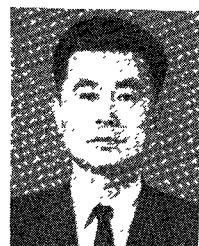


**Yoshiyuki Naito** (M'70) was born in Oita Prefecture, Japan, on November 22, 1936. He graduated from the electricity course in 1959 and received the Doctor of Engineering degree in 1964, both from the Tokyo Institute of Technology, Tokyo, Japan.

After completing his studies he was employed as an Assistant Professor at the Tokyo Institute of Technology. From September 1965 to October 1966, he studied, as a Researcher, at the Polytechnic Institute of

Brooklyn, Brooklyn, N. Y. He then returned to the Tokyo Institute of Technology where, since 1967, he has been an Associate Professor in the Faculty of Engineering. His research has chiefly been concerned with broad-banding of microwave circuit elements, properties of magnetic materials, and circuit elements using varactors. He has received an Inada Award and a Treatise Award.

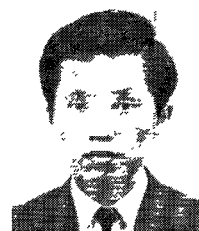
Dr. Naito is a member of the Institute of Electrical Engineers of Japan and the Japan Society of Applied Physics.



**Toru Okajima** was born in Saga, Japan, on March 26, 1928. He graduated from the Kumamoto Technical College, Japan, in 1948, and received the D.Eng. degree from Kyoto University, in 1961.

Since 1948 he has been employed by the Electrical Communication Laboratory, Nippon Telegraph and Telephone Public Corp., Tokyo, Japan. He has worked on microwave equipment and satellite communication system.

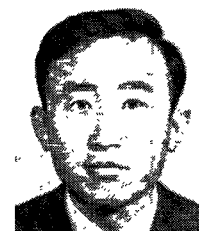
Dr. Okajima is a member of the Institute of Electronics and Communication Engineers of Japan.



**Toshio Oya** was born in Nagoya, Japan, on September 16, 1944. He received both the B.S. and M.S. degrees in electrical engineering both from Nagoya University, Nagoya, Japan, in 1967 and 1969, respectively.

He joined the Radio Transmission Laboratory, Fujitsu Laboratories, Ltd., Kawasaki, Japan, in 1969, where he has been engaged in the research of microwave highly stable oscillators using Gunn and IMPATT diodes.

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

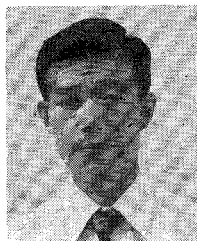


**Chung-li Ren** was born in Chefoo, China, on June 1, 1931. He received the B.S. degree in electrical engineering from the Taiwan College of Engineering, Taiwan, China, in 1953, the M.S. degree in electrical engineering from the University of Notre Dame, Notre Dame, Ind., in 1957, and the Ph.D. degree in electrophysics from the Polytechnic Institute of Brooklyn, Brooklyn, N. Y., in 1964.

From 1957 to 1959 he was a Senior Research Fellow at the Polytechnic Institute of

Brooklyn. In 1960 he became a Senior Graduate Assistant at the Microwave Research Institute of the Polytechnic Institute where he was engaged in research on wave propagation and scattering in the multimode waveguides and other related topics in electromagnetic theory. He was also a Lecturer in the Department of Electrical Engineering at the same institute. Since 1965 he has been with Bell Telephone Laboratories, Inc., North Andover, Mass., where he has been concerned with the theory and development of microwave filters and solid-state components for the microwave radio as well as the millimeter-wave waveguide transmission system.

Dr. Ren is a member of Sigma Xi.



**Masaichi Shinoda** was born in Fukuoka-ken, Japan, on November 15, 1937. He received the B.S. degree in electrical engineering and the Ph.D. degree in electronics engineering both from Tohoku University, Sendai, Japan, in 1960 and 1970, respectively.

He joined the Fujitsu Laboratories, Ltd., Kawasaki, Japan, in 1960, where he has been engaged in the research and development of high-frequency transistors, variable-capacitance diodes, IMPATT diodes, and other micro-

wave and millimeter-wave semiconductor devices. He is presently a Section Chief in the Semiconductor Laboratory, and is engaged in development of high-frequency FET, millimeter-wave devices, etc.

Dr. Shinoda is a member of the Institute of Electronics and Communication Engineering of Japan and Japan Society of Applied Physics.

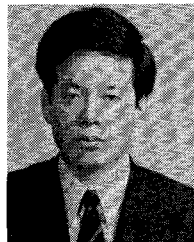


**Kiyoshi Shirahata** was born in Yamagata, Japan, on June 12, 1931. He received the Bachelor degree in 1955 and the Doctor degree in 1966, both in electrical engineering from Tokyo Institute of Technology, Tokyo, Japan.

In 1955 he joined Mitsubishi Electric Corporation, Japan. Now he is with Central Research Laboratory, Itami, and Electronics Laboratory, Kamakura Works, Kamakura, Mitsubishi Electric Corp. Since 1955 he has been engaged in the research and develop-

ment of microwave parametric and tunnel-diode amplifiers, microwave solid-state oscillators, microwave integrated circuits, and other microwave semiconductor devices and their applications.

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



**Daiji Taketomi** was born in Kobe, Japan, on February 23, 1939. He received the B.Sc. degree in electrical engineering from Kobe University, Kobe, Japan, in 1961.

In 1961 he joined Central Research Laboratory, Mitsubishi Electric Corporation, Japan. Now he is with Electronics Laboratory, Kamakura Works, Mitsubishi Electric Corp. Since 1961 he has been engaged in the research and development of microwave tunnel-diode and parametric amplifiers.

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



**Robert J. Trew** (S'71) was born in Saginaw, Michigan, on December 8, 1944. He received the B.E.E. degree from General Motors Institute in 1968 and the M.S.E. degree from the University of Michigan, Ann Arbor, in 1969.

From 1969 to 1970 he was employed by the Space Physics Research Laboratory of the University of Michigan, where he was involved in measurement studies of ionospheric radiation. He joined the Electron Physics Laboratory of the University of Michigan in

1971, where he is presently working toward the Ph.D. degree in the area of avalanche transit-time devices.



**Alvin Wexler** (S'57-M'66), for a photograph and biography please see page 424 of the June 1972 issue of this TRANSACTIONS.