

2000 Microwave Application Award

Arye Rosen

The Microwave Application Award recognizes an individual or team for outstanding application of microwave theory and techniques. This year's recipient is Dr. Arye Rosen, IEEE Fellow, and recipient of an IEEE Millennium Medal. His citation reads "FOR THE APPLICATION OF RF/MICROWAVE TECHNIQUES IN MEDICINE."

Arye Rosen came to this country in 1959 after withdrawing from the Hebrew University in Jerusalem. He attended Howard University, from which he graduated Cum Laude, where he was active in tutoring incoming students within the framework of activities of Tau Beta Pi, the Engineering Honor Society, and where he was involved with the social issues of the period. In parallel, he was employed at the Embassy of Israel in Washington, DC in the Office of the Scientific Counselor. He received the Masters Degree in Engineering from Johns Hopkins, which he attended on a Gilman Fellowship, and where he was an instructor in the Department of Electrical Engineering. He later also received a Masters of Science Degree in Physiology from Jefferson Medical College and a Ph.D. in Electrical Engineering from Drexel University.

He is a Senior Member of the Technical Staff at the Sarnoff Corporation (formerly David Sarnoff Research Center, and before that RCA Laboratories) in Princeton, NJ, which he joined in 1967. He is currently responsible for research and development in the areas of millimeter-wave devices and microwave optical interaction. He currently holds an appointment as Research Professor in the School of Biomedical Engineering, Science and Health Systems at Drexel University, where he has also held an appointment as Adjunct Professor in the Department of Electrical and Computer Engineering since 1981. He also holds the title of Associate in Medicine at Jefferson Medical College, where he has been engaged in research in the Division of Cardiology since 1970.

The author of more than 150 technical papers, he is Co-Editor of High-Power Optically Activated Solid-State Switches (Boston: Artech House, 1993) and New Frontiers in Medical Device Technology (New York: Wiley, 1995), as well as of six book chapters in the fields of engineering and medicine. He holds over 50 United States patents in the fields of engineering and medicine.

Arye became a Fellow of the IEEE in 1992 "for innovation in semiconductor devices and circuits for use in microwave systems and for microwave applications to medicine." He has been a member of the IEEE MTT-S Technical Program Committee since 1979, MTT-S Technical Committee Co-Chairman on Biological Effects and Medical Applications, he has served as Associate Editor of the IEEE JOURNAL OF LIGHTWAVE TECHNOLOGY (JLT). He has served on the Technical Committee for the IEEE International Conference on Microwaves in Medicine held in Belgrade, Yugoslavia, in April 1991. He is also a Member-at-Large of the IEEE Health Care Engineering Policy Committee, and serves as a Member of the IEEE Educational Activities Board. He is the recipient of numerous awards, including several RCA and Sarnoff Laboratories outstanding achievement and other professional awards, a 1989 IEEE Region One Award "for significant contributions to microwave technology by the invention and development of microwave balloon angioplasty," and a 1997 Drexel University College of Engineering, Electrical and Computer Engineering Department Distinguished Alumni Award "In Recognition of Distinguished Professional Accomplishments and Exemplary Service and Dedication to the Electrical and Computer Engineering Department and Drexel University". As IEEE Distinguished Microwave Lecturer from 1997 to 1999, he has had the opportunity to present his work and others' in the US, Japan, Europe and the Middle East.

