

Microwave Application Award:

This award recognizes an individual or team for outstanding application of microwave theory and techniques. This year's recipient are **Renato Bosisio, Ke Wu and Ji Li**.



Renato Bosisio

"For proposing, demonstrating and developing the multi-port (six-port) interferometer digital radio for wireless communication systems and sensor applications."

Renato G. Bosisio (M'79-F'95-LF'00) received the B.Sc. degree in mathematics and physics from McGill University, Montréal in 1951 and the M.Sc.A. Degree in Electrical Engineering from the University of Florida, Gainesville, in 1963.

He became Associate Professor in Electrical Engineering at École Polytechnique de Montréal, Canada, in 1965, Full Professor in 1970, Head of the Electromagnetic and Microwave Group in 1971, Head and founder of the Advanced Microwave Research Group in 1990, and Emeritus Professor in 1995.

Professor Bosisio has held a number of visiting/guest professor positions in various universities. He was a microwave engineer (1953-1965) in various countries (Canada, England and USA) working for Marconi, English Electric and Varian Associates. In a previous employment (1951-1953), he was a research scientist with the National Defense Board of Canada.

Prof. Bosisio has authored or co-authored over 400 refereed papers and holds 12 patents. His research interests involve microwave/millimeter-wave circuits and systems related to wireless local area networks, automotive guidance systems, and point-to-point and satellite communication links.

In particular he worked on six port circuits for microwave device characterization, and, later, he initiated a new microwave six-port receiver transmitter (phase based digital receiver/ transmitter) as a means to achieve cheap, digital, wide band wireless or wired microwave communications. The same innovation can also be used with other technology as for example with optical technology. General six-port technology is used in wireless sensor technology for the realization of microwave and optical sensor networks containing many or a few wireless six-port sensors. Pr. Bosisio also introduced Planar Goubau Lines (PGL) for general six-port technology useful in medical applications at Terahertz frequencies.