

Association of Professional Engineers
of the
Province of Manitoba
Merit Award

to

Dr. Mohamed A. Barakat

B.Sc.E.E., M.Sc.E.E., Ph.D., P.Eng., S.M.IEEE

Dr. Mohamed Barakat received his Bachelor of Science degree in Electrical Engineering from the University of Alexandria, Egypt, 1966. Before returning to the university to do graduate teaching and become a Research Assistant, Dr. Barakat was a Communications Engineer in the Egyptian Air Defense Force during his military service. He immigrated to Canada and received his Master of Science in 1974 and Doctor of Philosophy in 1982 in Electrical Engineering from the University of Manitoba.

Dr. Barakat's extensive engineering experience has been achieved through his employment with several consulting companies starting in 1976 with Teshmont Consultants Inc., Bristol Aerospace, Industrial Technology Centre of Manitoba Research Council and Canadian Institute of Industrial Technology of the National Research Council of Canada. In 1992, Dr. Barakat became the President of his own consulting company, InfoMagnetics Technologies Corporation, which has grown from four staff members in 1992/93, to 40 staff members at offices in Vancouver and Winnipeg with an annual income of four million dollars in 1996/97.

Dr. Barakat's company specializes in the design, development and integration of computer information systems using the latest software technologies and paradigms, distributed computing, networking, objective-oriented programming, graphical user interfaces and expert system, as well as wireless and satellite communication systems to improve the effectiveness and efficiency of the delivery of information services.

One of many of Dr. Barakat's technical achievements was generalizing the design of "LUNEBERG LENS" for telecommunication and radar applications in 1982. Dr. Barakat initiated the application of CAD techniques for microwave and antenna applications in 1985 and developed the first generation of software for the use of this technology. He was co-founder of the ANTEM conference first held at the University of Manitoba in 1986, which is now internationally known, and the main conference on antenna and EM in Canada. Dr. Barakat served as Chair of the Canadian Advisory Committee on International Organization for Standardization (ISO). In 1988, he was the Chair of the International Symposium on Manufacturing Application Languages (MAPL). In 1994, Dr. Barakat developed a compact portable unit for two-way data video transmission for advanced satellite communication applications which is now used by the European Space Agency. His innovative work also includes numerous components and systems for wireless and satellite communication applications.

Dr. Barakat is author and co-author of more than 30 published papers and presents his technical papers across Canada and around the world. He is also currently an Adjunct Professor of the Department of Electrical and Computer Engineering at the University of Manitoba. Community service is another facet of Dr. Barakat's life which rounds out his contributions to society. He was actively involved in the Kinsmen Club of Winnipeg.

Dr. Barakat and his wife, Samia, have two sons and a daughter, Sammy, Neil and Nadia, who are a great source of pride.

In awarding the Merit Award to Dr. Mohamed Barakat, P.Eng., the Association acknowledges his significant contributions to both the engineering profession and the community.

March 1998