



Michael Charles - nominated by the Canadian Society for Chemical Engineering

With a career spanning over 50 years in Canada, Michael Charles has achieved much as an educator, researcher, consultant, and academic administrator. His early exposure to the petroleum and mining industries in the Province of Alberta gave him grounding in resource transportation and processing that underpinned much of his subsequent teaching and research at the University of Toronto. His teaching and research was built upon the science of fluid mechanics and heat transfer applied to the flow of complex systems, including non-Newtonian crude oils, two-phase oil-water mixtures, and particulate systems. The objective was to achieve an understanding of flow mechanisms with a view to improving the design of pipelines so as, for example, to minimize power consumption. A novel feature of this work was the concept of in-line processing, now applied in the processing of Alberta oil sands.

After serving as Chair, Department of Chemical Engineering and Applied Chemistry from 1975 to 1985, Michael Charles was appointed Vice-Dean and then Dean of the Faculty of Applied Science and Engineering at the University of Toronto. This outstanding faculty is a community of some 5,000 undergraduates, graduate students, faculty and staff. Michael led a strategic planning process that culminated in a document entitled "Raising Our Sights: Being Counted Among the World's Engineering Schools" that was the basis of a major fundraising campaign that realized over \$100 million in support of the Faculty during his term as Dean.

Michael Charles also served on the Governing Council of the University of Toronto and throughout his career, always sought out ways to help students realize their potential and develop all-round capabilities. We are only too happy tonight to salute this Canadian engineer, researcher and educator, and welcome him into the ranks of EIC Fellowship.

Ladies & gentlemen and Mr. President, please welcome Michael Charles as a Fellow of the Engineering Institute of Canada.