



**UNIVERSITY OF TORONTO**  
**FACULTY OF APPLIED SCIENCE & ENGINEERING**

**Memorial Tribute**  
**to**  
**Douglas Lavers**  
**Professor Emeritus in the Edward S. Rogers Sr.**  
**Department of Electrical and Computer Engineering**

**October 6, 2011**

**Moved by:** Professor Farid Najm

**Seconded by:** Professor Emeritus Safwat Zaky

Be it resolved that the Council of the Faculty of Applied Science and Engineering record with deep regret the death on July 11, 2011 of Professor Emeritus Douglas Lavers.

After completing his PhD degree at the University of Toronto, Professor Lavers worked in industry in Germany for a few years. He then returned to Toronto and was appointed in 1974 to the Department of Electrical Engineering, now the Edward S. Rogers Sr. Department of Electrical and Computer Engineering. He was cross-appointed to the Department of Metallurgy and Materials Science, now Materials Science and Engineering, for many years. He had an outstanding career teaching and conducting research, during which he inspired a large number of undergraduate and graduate students in both departments.

The research interests of Professor Lavers spanned many aspects of electromagnetic field analysis and its application to electrical machines and to the development of heating and stirring techniques in metallurgical processes. He made many contributions to the use of numerical methods, particularly those known as finite-element methods, in field calculations. Despite its theoretical nature, his research had a strong focus on industrial applications, such as the use of rotating magnetic fields to stir molten metal. His research earned him an excellent international reputation and the highest level of recognition granted by the Institute of Electrical and Electronics Engineers. He was elected Fellow of the IEEE in 1994 for his contributions to the modeling of electrometallurgical systems and electroheat devices, later becoming a Life Fellow. He was heavily involved in the Magnetics Society of the IEEE. He chaired its Fellow Evaluation Committee and was an active member of the society's Executive Committee and the Editorial Board of the IEEE Transactions on Magnetics. The strong applications focus of his research also led to many consulting engagements with industry, particularly in the field of metallurgy.

Professor Lavers was a gifted teacher who loved teaching and cared deeply about his students and about educational standards. Students were quick to realize that he cared and to feel his passion for the material. As one of his former students observed "I can still remember his lectures for the dreaded electric and magnetic fields course. He was so good and so well-liked that soon the aisles and stairs were filled with students."

Doug was also a natural mentor to his younger colleagues, often advising them on funding proposals or on teaching. One colleague recalled his early years as a faculty member and the difficulties he encountered in teaching: “Half my class had stopped coming to lectures. Doug sat me down and chatted with me for a good long time about teaching strategy and communication, and met with me every week for the rest of the term.”

What is particularly special about Doug was his passion for exploring and participating in the grand beauty and majesty of nature. The love he had for the wilderness only matched the love he had for his family. He lived for the “next big trip” and enjoyed the preparation for such trips as much as the trips themselves. To him, it was a spiritual journey, not just a trip. A sampling of Doug’s yearning to taste the magnificence of nature included adventures in Chile, the Grand Canyon, Lake Superior, the Hood River canoe trip in the Yukon, the Dempster Highway, and of course his last Yukon canoe trip made this summer.

Doug was a man of kindness and joy. Those who knew him will remember his warmth, his generosity of spirit and, above all, his humanity. He will be dearly missed by all.

Be it further resolved that a record of his service be inscribed in the minutes of this Council, and that a copy be sent to his family as an expression of the respect and gratitude of the members of Council.

*Prepared by Professors Emeriti Ted Davison and Safwat Zaky*