

Remembering Elmer Bourque (1945-2017)



Passing away on December 28, 2017, Elmer J. Bourque will be remembered as an accomplished power engineer and a dedicated volunteer for IEEE, IEEE Canada and the IEEE Canadian Foundation. Amongst the many interests he had outside of work, he was an accomplished story teller, drawing upon humorous incidents throughout his career.

Elmer earned his first degree from College Ste Anne with a BA in 1965 majoring in Math and Physics – whose relationships to musical instruments were a fascination throughout his life. In 1969 he obtained a B.Sc. Electrical Engineering from the University of New Brunswick.

He began his working career developing numerical control software for the New Brunswick Research and Productivity Council on a DEC PDP-8i computer, to drive a digitally controlled machine tool. In 1974, he joined New Brunswick Power as system performance engineer responsible for power system stability and proper control by commissioning and maintaining fault recording equipment, area generation control, generator excitation, stabilizers, and governor systems. A notable achievement was the initiation of installation of automatic on-load tap changers on generator fed station service transformers to enable harnessing previously bottled generator reactive capability. Beyond New Brunswick Power, he represented the Maritime Area on the Northeast Power Coordinating Council's Control Performance Working Group for about 20 years.

In 1972, Elmer Bourque joined the IEEE New Brunswick section. His enthusiasm as a volunteer saw him elected as Section Secretary in 1981 for four consecutive terms, followed by five terms as Treasurer. He was elected Eastern Canada Council chair in 1997 for a three-year term. In 2003 he was appointed Secretary for IEEE Canada and served a two-year term. Following that he served as Member Services Chair, Region 7 representative to the IEEE Membership Benefits Committee and the IEEE Ethics Committee. Elmer was elected member of the IEEE Canadian Foundation in April 2007, volunteering for many tasks over the course of his two five-year terms. During the final meeting he attended in November 2017, it was suggested that he was deserving of some form of recognition such as a certificate or plaque. His unassuming response was: “no need for it.” This modesty was in keeping with his entire volunteer career, which also included being a frequent judge for paper competitions at universities and technical schools. For his volunteer work on behalf of Association of Professional Engineers and Geoscientists of New Brunswick (APEGNB) he was made Fellow of Engineers Canada.

Elmer's interest in the physics and mathematics of how musical tones are generated led him to ongoing tuning and maintenance of three large church pipe organs, playing the piano and making educational presentations on the mathematical and physical nature of music and musical instruments. He also enjoyed choral singing (bass). In a piece written for APEGNB's *Engenuity* magazine, he attributes his experience in tuning pipe organs to helping him solve a problem of electrical power oscillation in a hydro plant on New Brunswick Power's St. John River (see "Serendipity Inspires Solutions" beginning on page 16).

Outdoor activities were also a big part of Elmer's life. He enjoyed canoeing, cycling, rollerblading and kite flying. He managed to combine the first two of these by rigging up a trailer to tow his canoe behind his bicycle, often heading to the Saint John River to watch the eagles.



Always the inquisitive engineer who enjoyed the practical aspects of engineering, Elmer recently shared news of his latest home experiment, a 12-Volt incandescent light bulb with a piece of foil around the glass to create a vacuum tube diode.

For those interested in Elmer's colourful stories about his work experiences over the years, below are links to his "Experiential Learning" items in the *IEEE Canadian Review*:

http://canrev.ieee.ca/cr69/Experiential_Learning_Column__IEEE_Can_Review__Fall_2012_No_69.pdf

http://canrev.ieee.ca/cr72/ICR72_Experiential_Learning

http://canrev.ieee.ca/cr74/ICR74_Experiential_Learning.htm

Contributed by Bruce Van-Lane, EiC, IEEE Canadian Review and David Whyte, President, IEEE Canadian Foundation.