

## W. B. Lewis Medal – Dr. Michel Pettigrew



Professor Pettigrew is a recognized authority in flow-induced vibration and the associated frictional and fretting wear. He has also made significant contributions in studies of vibration of rotating machinery and of elastic-plastic deformation of structures. He has published extensively on these subjects, and is well known for the clarity of his presentations.

Professor Pettigrew received his B.Sc.A. (Hons) from École Polytechnique in Montréal and obtained a Diploma in Applied Mathematics as an Athlone Fellow at the University of Sheffield in the UK. He obtained an M.Sc. in Mechanical Engineering at the University of Birmingham. He then joined AECL Chalk River, where he had a successful career spanning 35 years. He worked on flow-induced vibration, initially of CANDU fuel bundles and then of heat-exchanger tubes. The latter, in particular, involved years of laboratory testing to understand the flow and vibration response of tubes in highly complex configurations. His work led to quantitative models of the fretting-wear rate of various tube and support-material combinations, and to the development of a suite of computer codes to predict tube-vibration behaviour.

On retiring from AECL in 2000, Michel Pettigrew was appointed as the Chair of Fluid Structure Interaction at École Polytechnique, funded by B&W Canada, AECL and NSERC. In a short time, he created a centre of excellence, attracting renowned researchers and graduate students to tackle complex engineering problems

### **PURPOSE OF THE AWARD:**

To recognize each year a Canadian scientist or engineer who has demonstrated a level of technical competence and accomplishment in the field of nuclear science and engineering as exemplified by the late Dr. W.B. Lewis during his involvement in the Canadian nuclear energy programme, 1946 to 1973.