

Association of Professional Engineers and Geoscientists
of the
Province of Manitoba

Merit Award

Presented to

AFTAB A. MUFTI

B.Eng. (C.E.), M.Eng., Ph.D., P.Eng.

Dr. Aftab Mufti is a Professor of Civil Engineering, at the University of Manitoba in Winnipeg, Manitoba, Canada, as well as being the Program Leader and President of ISIS Canada, and first President of ISHMII (International Society for SHM of Intelligent Infrastructures). He was one of the key persons to initiate interest in the uses of Advanced Composite Materials (ACM) for Civil Engineering structures in Canada through his founding work as Chair (1989 to 1993) of the Canadian Society for Civil Engineering (CSCE) Technical Committee on the use of ACM in Bridges and Structures. With support from Industry, Science and Technology Canada and External Affairs Canada, and working through the auspices of the CSCE, Dr. Mufti was the leader of fact-finding missions to Europe in 1990 and Japan in 1992.

He is the founding Chair of the non-profit Advanced Composite Materials in Bridges and Structures Network of Canada (ACMBSN). In 1995, along with his colleagues, he was the founding member of the group that established the NCE for the ISIS Canada Research Network. Dr. Mufti has authored or co-authored two of five design manuals prepared by ISIS.

As a member of the Canadian Highway Bridge Design Code Technical Committee on Advanced Composite Materials, Dr. Mufti is playing a key role in having the national design codes modified to incorporate the use of new materials and design concepts in civil structures.

Dr. Mufti coined the new term "Civionics" as an explanation of the need to bring together the brightest minds in the fields of electrical engineering, electronics, and photonics to expand the envelope of civil engineering in the future design of civil infrastructure. He is personally directing the preparation of detailed specifications to be used by sensor suppliers and installers to ensure optimum placement and enhance the efficiency and reliability of the systems. The quality of his research in the emerging area of Civionics and SHM is unparalleled. While others have monitored components, few have taken the systems approach being championed by Dr. Mufti.

Dr. Mufti is the author or co-author of nine books and more than 200 publications in Bridge Engineering, Finite Element Analysis and Computer Graphics, and several Technical Reports. He is a Fellow of the Canadian Society for Civil Engineering, the Engineering Institute of Canada, the Canadian Academy of Engineers and the American Society of Civil Engineers.

Dr. Mufti is the recipient of many awards for his research and distinction in engineering as well as for his outstanding contribution to education, research and industry. In particular, the steel-free bridge concept, of which he is the principal developer, has been recognized with a number of awards, both national and international. These include the Pratley Award 1994, the CERF Charles Penkow Award (Finalist) 1996, the Association of Consulting Engineers of Canada (ACEC) Award 1996, the Lieutenant Governor of Nova Scotia Award for Excellence in Engineering 1997, the International Road Foundation (IRF) Award for the best paper 1997, the ACI Design Award 1998, and the Nova Award 2000.

The Association is pleased to recognize Dr. Aftab Mufti for his accomplishments and for his many contributions to advancing civil engineering and Civionics. He is a most deserving recipient of the APEGM Award of Merit for 2005.

1 March 2005