

NORTHEASTERN UNIVERSITY

Distinguished Seminar Series Civil & Environmental Engineering

Wind Resilience and Sustainability

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ABSTRACT

The world is transforming and some of the most important new stressors are the resilience and energy sustainability of the human habitat. Wind, with its two aspects, damage and energy plays its role in this complex system.

Recently new aspects related to wind impact have emerged. Local, non-synoptic storm systems such as tornadoes and downburst are producing more than 65% of wind damage in interior North America and none of our buildings or structures are designed for these events. On the other hand the urban habitat is exploding and it is in need of new solutions in wind, solar and geothermal energy to be able to sustain itself in the future.

All these aspects are discussed and some solutions are penciled. The new WindEEE Dome at Western University is also presented as a novel tool that will be part of these wind related processes.

BIO

Dr. Horia Hangan is an expert in Wind Engineering, Wind Environment and Wind Energy with more than 100 contributions to buildings, bridges and wind turbine aerodynamics, external and internal wind environment and comfort, dispersion of pollutants, impact of rain and snow, aeroacoustics, and high intensity winds (downbursts and tornadoes). He has been leading the Computational Wind Engineering (CWE) direction of the BLWTL for the past 10 years. Dr. Hangan is the Chair of the Computer Aided Wind Engineering ASCE Subcommittee and a member of the Board of Directors of the Canadian Society of Mechanical Engineers (CSME).

Thursday, September 13, 2012

12 p.m. – 1 p.m.

458 Richards Hall

