DEPARTMENT OF CIVIL, STRUCTURAL AND ENVIRONMENTAL ENGINEERING

ENGINEERING SEMINAR

Wind-induced damage to buildings and structures and mitigation: Importance of education and research of wind engineering

Abstract

First, various different types of strong wind events and wind-induced vibrations to be considered in the design of buildings and structures are introduced. Then, typical examples of damage to buildings and structures due to strong winds and relevant statistics are introduced. Next, some important issues for design of tall buildings, mitigation measures, and activities to minimize wind-induced disasters are introduced. Finally, recent research trends and future prospects of wind engineering are discussed.

Yukio Tamura, Professor, Beijing Jiaotong University
Program Coordinator, Wind Engineering Joint Usage / Research Center, Tokyo Polytechnic University

Professor Tamura is an Emeritus Professor of Tokyo Polytechnic University, Japan, serving as Program Coordinator of the Wind Engineering Joint Usage/Research Center. He is concurrently working for the School of Civil Engineering, Beijing Jiaotong University, China, as a Professor. He is also serving as Honorary/Advisory/Adjunct Professor at 15 universities including the University of Notre Dame (US), Zhejiang University, Harbin Institute of Technology, Southwest Jiaotong University, Tongji University, Nanjing University of Aeronautics and Astronautics, University of Malaysia Pahang, and so on. Professor Tamura has received awards/prizes of different types including the ASCE Jack E. Cermak Medal in 2004, the ASCE Robert H. Scanlan Medal in 2016 and the IAWE Alan G. Davenport Medal in 2016 for his research activities, the JAWE Publishing Award in 2014 for his book entitled Advanced Structural Wind Engineering, and the JAWE Design Award for his contribution to wind resistant design of the 634m-high Tokyo Sky Tree. He is currently a member of the Engineering Academy of Japan (EAJ) and is a member of the Science Council of Japan (SCJ). He is also a Foreign Fellow of the Indian National Academy of Engineering. He was elected President of the International Association for Wind Engineering (IAWE) in 2007, and after completion of his four-year tenure, he was re-elected in 2011 for another four-year term until June 2015. Professor Tamura has contributed to society by way of various social activities. One of these is the establishment of the International Thematic Group for Wind-related Disaster Risk Reduction (IG-WRDRR) under the auspices of the United Nations International Strategy for Disaster Reduction (UN/ISDR) Secretariat, and he has been serving as Chairman of the IG-WRDRR since 2009.

Date: Wednesday, June 1 **Time:** 1:00 p.m.

Location: 230A/Davis, North Campus, University at Buffalo

University at Buffalo The State University of New York