A Tribute to Avant Garde of Wind Engineering

My journey to Davenport Medal by Ahsan Kareem

Excerpts from: the Davenport Medal: a tribute from the International Association for Wind Engineering to Alan Garnett Davenport by

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During my master's research work at MIT, I was introduced to the issue of human response to the motion of tall buildings under winds by Professor Robert Hanson, which sounded very intriguing and quite extraordinary for someone interested in classical structural engineering. While researching this topic, I quickly realized that the estimation of wind-induced motion of tall buildings was the essential pre-requisite and most of the papers on this topic were written by Professor Alan G. Davenport. I wrote a short note to Professor Davenport requesting a copy of one of his papers and also expressed interest in exploring possibilities to continue for my doctorate in his program at Western. Very shortly after that I received a package from him containing a number of papers, reports and details of admission and financial assistance. I responded and was pleased to receive admission with financial aid. At the same time, I was in touch with the father of wind engineering in Colorado, Professor Jack E. Cermak, who also offered me the same academic opportunity.

Consultation with friends left me with the impression that Western was always under a cover of deep snow blanket, therefore, I decided to join Professor Cermak's group in Colorado. However, this did not stop my reading and admiring the works of Professor Davenport who served as an inspirational icon to emulate. I recall vividly, his paper at the 5ICWE in Colorado soon after I started my career as assistant professor. It was very unusual consisting of a dialogue among a sage wind expert Monsieur Gustaf Eiffel; an erudite researcher, Dr. Ventus Explorator, an

assistant professor who had recently completed his Ph.D. thesis entitled, ‘‘Random Vibration of Random Structures in Random Wind’’; and a construction specialist, Mr. Ingenius Constructus. It was quite an exchange and I recommend its reading to my younger colleagues and students. In my own mind I could relate to that young researcher, educated in new technologies, who saw everything as random, and who had in his own way a keen insight into difficult engineering problems, which did not always garner the approval of Monsieur Eiffel and Mr. Constructus.

My own career advanced over the years, thanks to Jack Cermak, Bob Scanlan and Alan Davenport for their inspirational roles. I spent 12 years at University of Houston where I was able to expand my research portfolio to include dynamics of deepwater offshore platforms and hurricanes following Hurricane Alicia. Later, I moved to Notre Dame without realizing the blanket of snow and the proximity of Western. Regardless of the weather, at both places I have been blessed with some outstanding students who have made path-breaking contributions in a wide range of areas from bluff body aerodynamics/ aeroelasticity, dynamics of tall buildings, bridges and offshore platforms, wind tunnel experiments, stochastic and numerical simulation to risk-related issues and multi-hazard mitigation and more recently cyber-enabled technologies. Most of this was initiated by the opportunity afforded by the inaugural Presidential Young Investigator award from the White House Office of Science and Technology and administered by NSF. The work of ‘‘TeamKareem’’ got me the honor of receiving ASCE’s inaugural Jack E. Cermak Medal for contributions to wind engineering. A few years later, I was honored again, this time by ASCE’s Robert H. Scanlan Medal for contributions to engineering mechanics. Last summer, I was truly thrilled to learn that I will be receiving one of the inaugural Alan G. Davenport Medals introduced by IAWE as a senior award. It was even more humbling that two out of three junior IAWE awards went to my former students, Professors K. Gurley (University of Florida) and L. Carassale (University of Genoa). I could not be any more fortunate to have this unique triple distinction that honors three giants and pioneers of my field of research.

Last summer in Cairns, it was a very moving experience to receive the Davenport Medal from Alan personally. While he was handing me the medal, it brought back vivid memories of his lecture at the Colorado conference. I could clearly see in the eyes of this modern day Monsieur Eiffel, an avant garde, a positive nod to this ‘‘young researcher’’! What more can one ask!

[Earlier this year Kareem was elected to the National Academy of Engineering (USA) for his contributions to the analyses and designs to account for wind effects on tall buildings, long-span bridges, and other structures.]