

The Department of Civil and Environmental Engineering at the University of Houston presents...

CIVE 6111 Graduate Seminar

New Large-scale Facilities to Advance Knowledge and Mitigate Windstorm Impacts



Arindam Chowdhury, Professor

Department of Civil & Environmental Engineering Florida International University

Friday, December 2, 2022

2:45pm-3:45pm

Zoom: <https://uh-edu-cougarnet.zoom.us/j/95702511696?pwd=VFlybkh4emhETHNITGV0dXRHS3plZz09>

Abstract

Extreme wind events, such as hurricanes, cause severe damages to the built environment. To advance fundamental knowledge on wind effects and mitigate damage from windstorms, state-of-the-art experimental facilities are becoming available to conduct large- and full-scale study of the buildings and components, bridges, traffic signals and transmission lines. This seminar will focus on research at such facilities, future plans, case studies on the effects of windstorms on buildings and infrastructure systems, and use of Particle Image Velocimetry (PIV) for Fluid Structure Interaction (FSI) studies. Opportunities for faculty collaborations and graduate students' recruitment will be discussed.

Bio

Dr. Arindam Gan Chowdhury is a Professor at Florida International University's (FIU's) Department of Civil and Environmental Engineering and Co-Director of the Laboratory for Wind Engineering Research at FIU's International Hurricane Research Center. Dr. Chowdhury is conducting groundbreaking research at the Wall of Wind (WOW) facility at FIU. The National Science Foundation (NSF) selected the WOW as one of the nation's major Experimental Facilities (EFs) under the Natural Hazards Engineering Research Infrastructure (NHERI). This award puts WOW on the map as one of only eight NHERI EFs in the United States designated for hazard mitigation research, and one of only two for wind hazard research. Dr. Chowdhury is the Director and Principal Investigator for the NHERI WOW EF. The American Society of Civil Engineers (ASCE) selected the NHERI WOW EF as the winner of the *2018 Charles Pankow Award for Innovation*. Under Dr. Chowdhury's direction, the WOW research team has had a significant impact in mitigating hurricane damage by enhancing building codes, validating (and patenting) innovative mitigation technologies, and developing new materials. Dr. Chowdhury is the recipient of a Faculty Early Career Development Program (CAREER) Award from the NSF and a Research to Application Award from the Florida Sea Grant Program. FIU honored Dr. Chowdhury by naming him a Top Scholar, granting him a Service and Recognition award, and lauding him with the President's Council Worlds Ahead Faculty Award, which is the university's highest recognition for faculty members. Dr. Chowdhury obtained his PhD from Iowa State University, M.Tech from IIT Mumbai, and BCE from Jadavpur University.