



# TEXAS TECH UNIVERSITY National Wind Institute™

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## NWI CO-FOUNDER KISHOR MEHTA RETURNS TO TTU

September sees the return to Texas Tech of Dr. Kishor Mehta, NWI's co-founder and recognized worldwide authority on wind engineering. Until recently, Dr. Mehta was serving with the National Science Foundation (NSF) as Program Director for Structural and Architectural Engineering (formerly HMSE), part of the cluster on Resilient and Sustainable Infrastructure (SAI). The SAI program supports research in sustainable structures, such as buildings, that can be continuously occupied and/or operational during the structure's useful life. Dr. Mehta was also Co-Director for Engineering for Natural Hazards.

Dr. Mehta holds the position of the P. W. Horn Professor of Civil Engineering at TTU, and was the Director of the former Wind Science and Engineering Research Center from 1988-2003. He is one of a select group of faculty who have been selected as a Member of the prestigious National Academy of Engineering and is a Distinguished Member of the American Society of Civil Engineers (ASCE).

Dr. Mehta also served as Chair of the Task Committee on wind loads, part of the American National Standards Institute Committee and the ASCE Committee to develop ANSI A-58.1-1982, ASCE 7-88 and ASCE 7-95, all of which are now part of the wind load provisions for national building standards across the nation.

Dr. Mehta obtained his B.S. and M.S. degrees in civil engineering from the University of Michigan. Prior to pursuing his Ph.D. in structural engineering at the University of Texas-Austin, he worked for three years as a design engineer at the construction site of Glen Canyon Dam (Lake Powell) in Page, Arizona.

After his stint in Austin and once he had earned his doctoral degree, Dr. Mehta joined Texas Tech University as civil engineering faculty.

His research contributions include the development of above-ground shelters for tornadoes, the EF-scale for tornado intensity ratings, and the Wind Engineering Research Laboratory.



*(Above) - Dr. Kishor Mehta, Horn Professor and co-founder of the National Wind Institute, who has returned from his appointment at the National Science Foundation in Washington, D. C.*

In October 2014, Dr. Mehta was recognized with the ASCE's Jack E. Cermak Medal for a lifetime of innovative wind engineering research.

Dr. Mehta was recently recognized for his 50 years of service at Texas Tech University, and NWI welcomes his return to Red Raider Country.

## NWI FACULTY MEMBER GIVES PRESENTATION AT WIND OPERATOR CONGRESS NORTH AMERICA



Dr. Carsten Westergaard, NWI Professor of Practice, recently was invited to give a presentation at the Wind Operator Congress North America event which was held in September in Chicago. The presentation covered insights about the wind power operations industry.

Wind Operator Congress North America unites leading owner operators, OEM's and service providers in the pursuit of the strategies, models, tools and practices to deliver operational excellence across the industry.

## NEXTERA ENERGY SAILS INTO TOWN FOR RECRUITING VISIT

It's time for Career Fairs on campus, and to coincide with that, NextEra Energy visited the National Wind Institute to participate in TTU's Engineering Job Fair and to interview a select group of our outstanding undergraduate students in the final stages of completing their Bachelor's degree in Wind Energy.

As part of NextEra's busy multi-day visit, company representatives toured NWI facilities, visited with faculty and staff, and managed to fit in a fun afternoon of land sailing on the unused runways at the Institute's 67-acre field site out at Reese Technology Center.

*Image on right—(L-R) - Christine Mercier, Sr. College Program Specialist with Nextera, prepares for some landsailing with NWI's Kacey Young.*



## NWI GRANTS AND CONTRACTS — SEPTEMBER 2015

Investigator	Unit	Credit	Award Amount Credited	Title	Agency	Project Period
Bruning, Eric C.	Geosciences	33.00%	\$63,098.64	VORTEX-SE: Improving Understanding and Predictability of Tornadoic Storms in the Southeastern U.S. Using Intensive Observations and High-Resolution Modeling.	NOAA	09/01/2015-08/31/2017
Dahl, Johannes	Geosciences	33.00%	\$63,098.64	VORTEX-SE: Improving Understanding and Predictability of Tornadoic Storms in the Southeastern U.S. Using Intensive Observations and High-Resolution Modeling.	NOAA	09/01/2015-08/31/2017
Castillo, Luciano	Mech. Eng.	25.00%	\$36,188.75	PIRE: USA/ Europe Partnership for Integrated Research and Education in Wind Energy Intermittency: From Wind Farm Turbulence to Economic Management (WISE-IND).	NSF/Johns Hopkins University	10/01/2015-09/30-2016
Schroeder, John L.	Geosciences	25.00%	\$36,188.75	PIRE: USA/ Europe Partnership for Integrated Research and Education in Wind Energy Intermittency: From Wind Farm Turbulence to Economic Management (WISE-IND).	NSF/Johns Hopkins University	10/01/2015-09/30-2016
Swift, Andrew H.	NWI	25.00%	\$36,188.75	PIRE: USA/ Europe Partnership for Integrated Research and Education in Wind Energy Intermittency: From Wind Farm Turbulence to Economic Management (WISE-IND).	NSF/Johns Hopkins University	10/01/2015-09/30-2016
Weiss, Christopher C.	Geosciences	34.00%	\$65,010.72	VORTEX-SE: Improving Understanding and Predictability of Tornadoic Storms in the Southeastern U.S. Using Intensive Observations and High-Resolution Modeling.	NOAA	09/01/2015-08/31/2017
Zuo, Delong	TechMRT	100%	\$65,587.00	NWI: Fatigue Resistance and Reliability of High Mast Illumination Poles (HMIPs) with Pre-Existing Cracks.	TXDOT/ Univ. of Houston	09/01/2015-08/31/2017

## NWI SCHOLARLY UPDATE: SEPTEMBER 2015

Anna Young, NWI's Associate Managing Director, will be defending her dissertation on Thursday, October 15th, in Education Room 152 at 1 p.m. The title of her dissertation is "Identifying Empirical Links between Interpersonal and Intellectual Dimensions of Multidisciplinary Research Teams." Good luck!

### OTHER SCHOLARSHIP ACHIEVEMENTS:

Klees, A. M., Y. P. Richardson, P. M. Markowski, C. C. Weiss, J. M. Wurman, K. K. Kosiba, 2015: Comparison of tornadic and nontornadic supercells intercepted by VORTEX2 on 10 June 2010. *Mon. Wea. Rev.* (Submitted).

Skinner, P. S., C. C. Weiss, L. J. Wicker, C. K. Potvin, and D. C. Dowell, 2015: Forcing mechanisms for an internal rear-flank downdraft momentum surge in the 18 May 2010 Dumas, Texas supercell. *Mon. Wea. Rev.* (Accepted).

Tanner, L. (2015). Guidance Document for the Testing and Assessment of Ice Ball Impact Resistance of Materials Attached to Vertical or Near Vertical Surfaces. ANSI Technical Committee for development as a standard. (Currently under peer review.)

Weiss, C. C., D. C. Dowell, J. L. Schroeder, P. S. Skinner, A. E. Reinhart, P. M. Markowski, and Y. P. Richardson, 2015: A comparison of near-surface buoyancy and baroclinity across three VORTEX2 supercell intercepts. *Mon. Wea. Rev.*, **143**, 2736-2753.



(Above) Anna Young, Associate Managing Director, NWI.



(Above) Dr. Chris Weiss, Associate Professor, Atmospheric Science.

### CONFERENCES/WORKSHOPS ATTENDED:

Dr. Chris Weiss (ATMO) recently attended the 8th European Conference on Severe Storms from September 14-19 in Wiener Neustadt, Austria, and hosted by the European Severe Storms Laboratory.

### UPCOMING DATES FOR CONFERENCES/WORKSHOPS and OTHER EVENTS:

- Dr. Chris Weiss will be attending the VORTEX-SE Workshop hosted by NOAA on November 09-11 in Huntsville, AL.
- Professor Larry Tanner is attending the Commercial UAV Expo 2015 on October 6-8 in Las Vegas, NV.
- Former NWI faculty affiliate Dr. Chris Letchford is Co-Chairing the 8th International Colloquium on Bluff Body Aerodynamics hosted by Northeastern University on June 07-11, 2016, in Boston, MA.
- Wind Science and Engineering student Jingting Ziao will be giving his doctoral dissertation defense on Friday October 16 at 9 a.m. in CE Room 209. Dissertation title: Nonstationary Wind Field Modelling and Simulation for Wind Loading Assessment.

If you are interested in having your latest scholarly endeavors featured in the next NWI newsletter, please forward your information (publications, proceedings, conference/workshop attendance, or other news etc.) to Liz Inskip-Paulk (email: [Elizabeth.paulk@ttu.edu](mailto:Elizabeth.paulk@ttu.edu)).