



TEXAS TECH UNIVERSITY

**Strategic Hire in Atmospheric Hazards
Four Tenure-Track Positions**

Summary

Our world is warming; atmospheric hazards are becoming more frequent and more intense. Growing resilient communities is a national priority, and the National Wind Institute (NWI) at Texas Tech University (TTU) is expanding its effort to mitigate atmospheric hazards through the synthesis of the physical, social, data dimensions of the problem. We are seeking ambitious faculty in the areas of social science, data science, wind engineering and atmospheric boundary layer modeling to join our team. The successful candidates will be expected to develop a vibrant externally-funded research program; pursue a variety of traditional and non-traditional research funding sources; generate a scholarly publication record; advise graduate and undergraduate students; possess an enthusiasm for diverse and innovative teaching; participate in national and international technical committees and outreach activities; and work within a multi-disciplinary group to develop actionable engineering and social strategies that contribute to a significant reduction in the impact of wind hazards on society. NWI, along with the Whitacre College of Engineering and College of Arts and Sciences at TTU invite applications for a cohort of full-time, 9-month tenure-track positions which are anticipated to begin in the Fall of 2024. TTU anticipates filling four new positions in 2024 and making additional hires in complementary areas in future years. Applications for all ranks are encouraged.

In line with TTU's strategic priorities to engage and empower a diverse student body, enable innovative research and creative activities, and transform lives and communities through outreach and engaged scholarship, applicants should have experience working with diverse student populations at the undergraduate and/or graduate levels within individual or across the areas of teaching, research/creative activity, and service.

Required Qualifications

Specific required qualifications include:

1. Completion (by the time of the appointment) of a Ph.D. in a related field with emphasis on or relatable to wind hazards;
2. A documented record of quality teaching (Full or Associate Professor) or demonstrated strong potential for teaching (Assistant Professor) in the undergraduate and graduate programs in their area of expertise or appropriate technical topics;
3. The ability to develop and sustain a vibrant, nationally/internationally recognized and externally-funded research program;
4. Experience with (Full or Associate Professor) or strong potential (Assistant Professor) for mentoring M.S. and Ph.D. students.
5. A willingness to work within a multi-disciplinary group to develop engineering and socially actionable strategies that contribute to a reduction in the impact of wind hazards on society.
6. A proven track record (Full Professor) of leading large multi-disciplinary teams of researchers.

Preferred Qualifications

In addition to the required qualifications, individuals who have one or more of the following preferred qualifications are strongly encouraged to apply:

1. Experimental Psychologists with expertise in risk perception, judgement and decision making, or attitudes and beliefs related to climate and weather extremes (e.g., tornadoes and hurricanes). Methods are open, though experience with mixed methods survey research is preferred. Candidate should have experience examining individual, community, or system level resilience in the context of behavioral, cognitive, or perceptual processes and frameworks for risk assessment.
2. Wind Engineers that employ machine learning and artificial intelligence to examine linkages between atmospheric measurements, wind engineering applications, and socioeconomic impacts. Ideal candidate will be able to work with various data types and scales involved in wind engineering, atmospheric measurements, and socioeconomic impacts.
3. Atmospheric Scientists with a primary focus on large eddy simulation and its connections to smaller (i.e., engineering oriented computational fluid dynamics, finite element, etc.) scales of motion within the context of atmospheric wind hazards. Additional linkages with atmospheric predictability on larger scales, multi-scale simulations of other atmospheric phenomena (e.g., severe storms, lightning) and wind energy (wind plant complex flow fields) are also of significant value.
4. Structural engineers that specialize in wind loading and loading effects on structures and are comfortable operating at the interface with atmospheric wind hazards. The individual should have proven experience in performing analytical, experimental and/or numerical modeling of wind loading and loading effects.

About the University, College, and Department/School/Area

Established in 1923, Texas Tech University is a Carnegie R1 (very high research activity) Doctoral/Research-Extensive, Hispanic Serving, and state-assisted institution. Located on a beautiful 1,850-acre campus in Lubbock, a city in West Texas with a growing metropolitan-area population of over 300,000, the university enrolls over 40,000 students with 33,000 undergraduate and 7,000 graduate students. As the primary research institution in the western two-thirds of the state, Texas Tech University is home to 10 colleges, the Schools of Law and Veterinary Medicine, and the Graduate School. The flagship of the Texas Tech University System, Texas Tech is dedicated to student success by preparing learners to be ethical leaders for a diverse and globally competitive workforce. It is committed to enhancing the cultural and economic development of the state, nation, and world.

The Whitacre College of Engineering (WCOE) and the College of Arts & Sciences (CA&S) both represented original academic areas when TTU opened in 1925. The CA&S is comprised of 15 departments, offering a wide variety of courses and programs in the humanities, social and behavioral sciences, mathematics, physical sciences, and natural sciences. The College has more than 10,000 students enrolled representing more than a quarter of the overall Texas Tech University student population while maintaining a 22:1 student to faculty ratio. The WCOE

houses seven departments which offer nine bachelor's, 13 master's, and eight doctoral degree programs. The college has more than 4600 undergraduate and 1500 graduate students.

NWI was first established in 1970 in response to an F5 tornado which impacted Lubbock. While affiliated faculty originally focused solely on engineering, the Institute quickly expanded to include other disciplines. Today, NWI's research agenda has expanded to include atmospheric measurement and prediction, wind engineering, and energy systems. NWI represents a multidisciplinary hub of innovative activity supported by a growing list of faculty affiliate and student contributors, unique suite of world-class facilities, and capable technical/administrative staff.

About Lubbock

Referred to as the "Hub City" because it serves as the educational, cultural, economic, and health care hub of the South Plains region, Lubbock boasts a diverse population and a strong connection to community, history, and land. With a mild climate, highly rated public schools, and a low cost of living, Lubbock is a family-friendly community that is ranked as one of the best places to live in Texas. Lubbock is home to a celebrated and ever-evolving music scene, a vibrant arts community, and is within driving distance of Dallas, Austin, Santa Fe, and other major metropolitan cities. [Lubbock's Convention & Visitors Bureau](#) provides a comprehensive overview of the Lubbock community and its resources, programs, events, and histories.

Equal Opportunity Statement

All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, gender expression, national origin, age, disability, genetic information or status as a protected veteran.

To Apply

Please include the following documents in your application:

1. Curriculum Vitae
2. Cover Letter
3. Statements of research, teaching and service plans
4. Statement of interdisciplinary vision related to reducing the impact of wind hazards
5. List of references

Questions about this announcement should be directed to Dr. John Schroeder at john.schroeder@ttu.edu. If you need assistance with the application process, contact Human Resources, Talent Acquisition at hrs.recruiting@ttu.edu or 806-742-3851.



Application Process

The application deadline is January 31, 2024. To ensure full consideration, please complete an online application through [Work at Texas Tech](#)

Postings for the positions are also listed at [TTU's Strategic Hiring page](#) (QR code to left).