

# The Wind Engineer



American Association  
for Wind Engineering

## CWE2026: Advancing Computational Wind Engineering

The 8th International Symposium on Computational Wind Engineering (CWE2026) will take place June 7–11, 2026, in London, Ontario, Canada. The symposium serves as a premier international forum for advances in wind-flow modeling, state-of-the-art simulation techniques, and applications across structural, environmental, and applied engineering fields. More information and registration is available at <https://cwe2026.com/>.

CWE2026 offers a strong technical program focused on recent advances in computational wind engineering, including high-fidelity wind-flow modeling, numerical simulation techniques, and applications relevant to structural, environmental, and applied engineering practice. The symposium's technical sessions and keynote presentations are designed to bring together researchers and practitioners working at the forefront of computational methods, providing AAWE members with opportunities to engage in state-of-the-art research discussions that directly support wind-hazard analysis, resilience-based design, and performance-oriented engineering practice.

A special highlight is the CWE2026 Workshop, which will focus on bridging computational methods with experimental, field, and applied wind-engineering approaches. The workshop is held June 5–6, 2026 to provide deeper, hands-on engagement with emerging tools, methodologies, and best practices in computational wind engineering, making it particularly valuable for researchers, practitioners, and early-career professionals seeking to translate advanced modeling techniques into practical applications. Participation in the workshop, along with the broader symposium, offers AAWE members an excellent opportunity to strengthen technical expertise, build international collaborations, and contribute to shaping future directions in wind engineering research and practice.

We hope to see many AAWE members at CWE2026!



---

# News and Updates

---

## Ahsan Kareem Elected to European Academy of Sciences

Ahsan Kareem, the Robert M. Moran Professor of Engineering at the University of Notre Dame, has been elected to the European Academy of Sciences, one of the continent's leading scientific bodies. EurASc promotes scientific excellence across Europe and describes its mission as advancing "a vision for Europe that transcends national borders."

Kareem, a prominent figure in civil and environmental engineering, was recognized for decades of work improving the safety and resilience of buildings and infrastructure exposed to extreme winds, waves, and earthquakes. His research has shaped modern standards for structures facing natural hazards around the world.



Photo courtesy of the University of Notre Dame.

The honor follows another major accolade earlier this year: the Archimedes Medal, awarded at the 2nd Olympiad in Engineering Science in Stavanger, Norway. The medal is given to individuals whose contributions have had a lasting impact on engineering science—an achievement colleagues say reflects Kareem's global influence on the field

---

## Request for Participation: Impact of Climate Change in Codification

The International Association for Wind Engineering (IAWE) established a Task Group on Climate Change, for the purpose of reviewing and assessing existing climate science data and investigating how climate change will alter wind conditions. The Codes and Standards Subgroup is calling for responses to the online survey about the impact of Climate Change on codification in Wind Engineering. The purpose of the survey is to gain a broad overview of how the engineering community is reacting to the need for an update of wind loading codes in view of Climate Change.

Response to the survey can be anonymous, however disclosure of identity, affiliation and position is highly encouraged. The survey is made of ten short sections, and it is expected to take less than 5 minutes to fill. You may use the forward (→) and back (←) buttons to modify your responses. Please remember to complete your survey by navigating until the end (question 10, and confirming by "→") so that we may record your answers. **Please complete the survey by: May 9, 2026.**

The survey is available at: [https://neu.co1.qualtrics.com/jfe/form/SV\\_8CSOGUK34wIBkxM](https://neu.co1.qualtrics.com/jfe/form/SV_8CSOGUK34wIBkxM)

---

# News and Updates Cont'd

---

## **Kishor Mehta Inducted into Spur Society of Texas Tech.**

University Chancellor Tedd Mitchell introduced him with following Statement:

“For more than six decades, Dr. Kishor Mehta has shaped the future of engineering education and research at Texas Tech University. A graduate of the University of Michigan and The University of Texas at Austin, Dr. Mehta joined Texas Tech in 1964 and became one of the most respected figures in wind science worldwide. Dr. Mehta is best known for developing the Enhanced Fujita Scale, which has been used in the United States since 2007 to categorize the intensity of tornadoes.



Photo courtesy of Texas Tech University

Among many accolades, he was the first person from Texas Tech to be elected as a member of the National Academy of Engineering, served as the program director of structural and architectural engineering for the Engineering Directorate at the National Science Foundation and starred in an episode of Bill Nye the Science Guy. In 2024, Dr. Mehta received the distinction of Emeritus Faculty at Texas Tech University. Dr. Mehta has established a scholarship and a professorship in the Whitacre College of Engineering: the Kishor C. and Mary Ann Mehta Graduate Endowment and the K. C. Mehta Professorship Endowment.

Dr. Mehta and his late wife Mary Ann Mehta, who passed away from cancer in 2007, have four children.

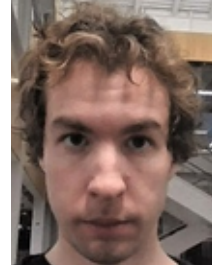
Thank you, Dr. Mehta, for making it possible for generations of students and researchers to build upon your remarkable legacy of innovation.”

---

# 2024 AAWE Best Paper Award

---

AAWE is pleased to announce that the paper “Streamline curvature effects generated by tornado-like flows on the aerodynamics of a low-rise structure” by Stefano Brusco and Gregory A. Kopp has been awarded the 2024 Best Paper Award. The paper is available at <https://doi.org/10.1016/j.jweia.2024.105865>.



This open-access study presents a detailed experimental investigation using the WindEEE Dome tornado simulator and an ABL wind tunnel to understand how tornado-induced streamline curvature affects the aerodynamic pressures on a low-rise building. The authors examined pressure fields, velocity measurements, and tornadic streamlines derived from Cobra probe data, demonstrating that tornado-generated pressure patterns differ significantly from those produced by straight-line atmospheric boundary layer winds. Their findings highlight how streamline curvature alters flow separation, reattachment behavior, and resulting load patterns, providing important insights for improving wind-resistant building design in tornadic environments.



This outstanding contribution advances the field’s understanding of non-synoptic wind behavior, supporting ongoing efforts to bridge the gap between laboratory simulations and real-world tornado impacts.

**Congratulations to Drs Brusco and Kopp !**

---

## Research Highlights

---

### Introducing WindWise: Technical Dialogues in Wind Engineering

WindWise is a new webinar series launched by the American Association for Wind Engineering (AAWE) to foster engaging, forward-looking discussions within the wind engineering community. Designed as more than a traditional lecture format, WindWise brings together leading researchers and practitioners for interactive technical dialogues on emerging topics, unresolved challenges, and future directions in the field.

Each session features invited speakers presenting recent advances and perspectives, followed by a moderated panel discussion with experts that encourages exchange of ideas and audience engagement. By creating space for both depth and dialogue, WindWise aims to strengthen connections across academia and practice while highlighting the evolving landscape of wind engineering.

# Research Highlights, cont.

## WindWise, cont.

The inaugural WindWise session is scheduled for **May 5th at 1:00 PM EST**. Additional information regarding registration and meeting details will be shared with the community in the coming week.

WindWise Title: **Bluff Body Aerodynamics: from fundamentals to new research frontiers.**

Subtitle: Which Eddies Matter—and Why: Baseline Instabilities, Receptivity, and Strong Loading

Speakers: Daniel Chapman Lander, Sr. Lecturer and Christopher Letchford, Professor and Department Head, Rensselaer Polytechnic Institute

Moderator: Alice Alipour, Associate Professor, Iowa State University

Panelists: Greg Kopp, Professor, University of Western Ontario and Teng Wu, Professor, University at Buffalo



**Abstract:** Wind engineering often groups small-scale turbulence–body interaction effects under broad labels such as “building-generated turbulence” or “small scales.” In parallel, inflow turbulence is commonly reduced to integral descriptors that can mask the scale-dependent spectral content that couples to separated-flow dynamics. A more nuanced interpretation framework is proposed: pressure-relevant frequency content is selected by the intrinsic instability modes of the baseline separated flow (the flow that exists without free-stream turbulence). Eddies matter insofar as their spectral content overlaps the receptive bands of these inherent dynamics, which can excite, suppress, or distort the instability-driven organization of the separated-flow regions that set the loading.

Square prisms, the 5:1 rectangular cylinder (BARC), and a low-rise building geometry (TTU) are used to bridge fundamental and applied settings, with emphasis on flow physics close to separation. The family of instability modes in the canonical separation bubble provides an organizing example, including Kelvin–Helmholtz shear-layer instability, the shedding mode, and low-frequency flapping motion. Melbourne’s S-parameter provides an early precedent for connecting inflow spectral content to a specific separated-flow structure; the present receptivity framework extends that motivation into a broader, mode-based explanation for why a restricted portion of the inflow spectrum controls fluctuating and peak loads.

---

# Research Highlights, cont.

---

## Windwise, cont.

May 5, 2026 01:00 PM Eastern Time

Implications are discussed for emerging testing methods such as partial turbulence simulation (PTS), with the goal of expanding wind-tunnel capability and improving load predictions for cladding and other small-scale components.

### Learning outcomes:

1. Explain what “which eddies matter” means: not all turbulence affects loading the same way.
2. Identify the modes of separated flows: e.g., KH instability, shedding, flapping of a separation bubble.
3. Connect turbulence scale to loading: eddies matter when their frequencies overlap what the baseline flow is receptive to, affecting loads.
4. Apply to testing: use this idea to think about what methods like PTS should reproduce to improve cladding/small-component load predictions.

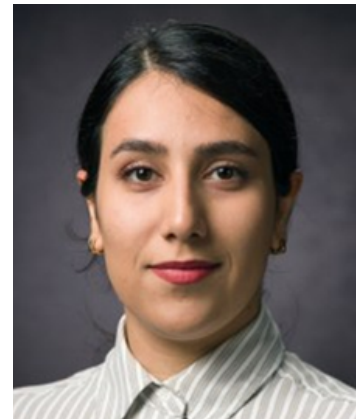
**Instructions:** registration is required to attend the WindWise event. Please register in advance for this meeting: <https://buffalo.zoom.us/meeting/register/K-89s9abQYyhYb8qOscSPw>  
After registering, you will receive a confirmation email containing information about joining the meeting.

---

## Early Career Spotlight

---

**Bahareh Dokhaei** is a Ph.D. student in Structural Engineering in the Department of Civil Construction and Environmental Engineering at the Iowa State University, specializing in wind engineering and performance-based design of tall buildings. Her research focuses on mitigating wind-induced vibrations (WIV) through aerodynamic modifications and intelligent façade systems, including cyber-physical and machine learning–based approaches. She has worked with data from large-scale aeroelastic wind tunnel experiments conducted at the NHERI Wall of Wind facility and has developed data-driven models to predict structural responses under complex wind conditions. Her work also explores sustainable structural design and optimization to reduce material use and environmental impact.



### Selected Publications:

Dokhaei, B., Shafei, B., Alipour, A. (2026). Optimized design of steel structural systems for reduced carbon footprint and enhanced resiliency in wind. *Engineering Structures*, 350, 121895. <https://doi.org/10.1016/j.engstruct.2025.121895>

Dokhaei, B., Abdelaziz, K., Shafei, B., Sarkar, P., Hobeck, J., and Alipour, A. (2025). Aeroelastic boundary layer tests of a 1: 76 model of tall building and effects of adjacent building interference. *Journal of Wind Engineering and Industrial Aerodynamics*, 257, 106006. <https://doi.org/10.1016/j.jweia.2025.106006>.

Dokhaei, B., Alipour, A. K., Abdelaziz, B. Shafei, P. Sarkar, and J. Hobeck. (2026). Cyber-physical smart morphing facades driven by reinforcement learning for wind-induced vibration control in tall buildings. *Journal of Wind Engineering and Industrial Aerodynamics* 106394. <https://doi.org/10.1016/j.jweia.2026.106394>

---

# Job Postings and Conferences

---

## **CISM Advanced School on Nonstationary Thunderstorm Winds**

The 2026 CISM Advanced School, Modeling of Nonstationary Thunderstorm Winds and Their Impact on Structures and Infrastructures, will take place May 25–29, 2026, in Udine, Italy.

This intensive hybrid course brings together leading international experts to explore cutting-edge research on downbursts, gust fronts, and nonstationary wind modeling—areas that remain underrepresented in traditional wind engineering curricula.

Topics span atmospheric science, structural engineering, experimental methods, and climate-influenced wind hazards, providing a rare opportunity for multidisciplinary learning and collaboration.

Late on-site registration: May 12, 2026

Live streaming online participation: May 12, 2026

A limited number of participants from universities and research centers who do not receive support from their institutions can request a waiver of the registration fee and/or free lodging. The original request deadline has passed, but interested individuals are strongly encouraged to contact the CISM Secretariat as soon as possible to inquire about remaining availability. Requests should be submitted by email to [info@cism.it](mailto:info@cism.it).



---

## **The 17th International Conference on Wind Engineering**

ICWE2027 will be held June 20–25, 2027, bringing together global experts to advance the science and practice of wind engineering. The conference will feature sessions across key topic areas, including structural and environmental wind engineering, non-synoptic wind effects, bluff-body aerodynamics, multi-hazard interactions, and emerging AI and computational methods.



Abstract submissions open in September 2026, with the submission deadline scheduled for January 2027 (TBD). Researchers are also invited to propose special sessions by contacting the organizing team at [icwe@uwo.ca](mailto:icwe@uwo.ca).

---

# AAWE LinkedIn

---

## Are you on LinkedIn?

AAWE is too—follow us to stay up to date on all things wind engineering. We share information on upcoming conferences and workshops, award and recognition opportunities, member accomplishments, and other news from across the community. Click [here](#) to view the [AAWE LinkedIn page](#) and **make sure to click follow** to keep up to date with AAWE happenings!

We're also launching student spotlights on LinkedIn to highlight PhD students graduating this spring or summer with a focus on wind engineering. If you know of a graduating PhD student from a university in the Americas region, please contact David Roueche ([david.roueche@aawe.org](mailto:david.roueche@aawe.org)) so we can follow up for more details and feature them in an upcoming post.

---

# Call for Newsletter Content

---

The American Association of Wind Engineers (AAWE) invites members to contribute content to future issues of the AAWE Newsletter. This newsletter serves as a platform to share knowledge, celebrate achievements, and strengthen connections across the wind engineering community.

Suggested content includes (but is not limited to):

- Research highlights or recent publications
- Project spotlights or case studies
- Member news, awards, or professional milestones
- Job postings, internships, and student opportunities
- Upcoming conferences, workshops, webinars, or short courses
- Calls for papers, abstracts, or participation

We welcome submissions from researchers, practitioners, students, and industry professionals at all career stages.

Please send newsletter content to [info@aawe.org](mailto:info@aawe.org) with subject line 'AAWE Newsletter'. Thank you very much in advance for your input!

The Wind Engineer is edited by Carol Friedland.