

Enhancing Hurricane Resilience of Urban Buildings in a Changing Climate

We are seeking a motivated PhD graduate research assistant to join an intellectually exciting and socially impactful sponsored research project at the Colorado State University Department of Civil and Environmental Engineering. Damage due to wind and concurrent hazards during hurricanes can be catastrophic to urban buildings. The risks of hurricane-induced damage may evolve due to climate change. The overall goal of this study is to develop new methodologies to assess these evolving risks to improve the lifetime performance of urban buildings in hurricanes and enhance resilience of coastal urban communities. Based on the developed methodologies, this study will develop a user-friendly, cloud-based online application for engineers and resilience planners to quickly evaluate the changing risks of an inventory of buildings at urban scales.

Minimum qualifications are:

- BS in Civil and Environmental Engineering or related discipline.
- Clear research interest in hurricane/wind hazards mitigation.
- Proficiency in oral and written English communication.

Preferred qualifications for this position are:

- MS in Civil and Environmental Engineering or related discipline.
- Experience with coding in Python, Matlab, or other programming languages.
- Experience with statistical and probability methods for structural reliability analysis.
- Experience with machine learning techniques.
- Experience with geographic information systems (GIS) such as ESRI's ArcGIS Pro.
- Research experience in wind engineering or computational fluid dynamics.
- Demonstrated ability to write and publish original research.
- Demonstrated ability to work effectively in teams.

If interested, contact **Prof. Yanlin Guo** (yanlin.guo@colostate.edu) with the following materials as a single PDF attachment and email subject line "Application for PhD Position – Enhancing Hurricane Resilience of Urban Buildings in a Changing Climate":

- 1) A 1–2-page cover letter with your interest in the position and research topics, and how you meet the required and preferred qualifications.
- 2) A current resume or CV. In resume or CV, please list English tests (GRE, TOEFL, IELTS) scores if available. For GRE score, please report scores for verbal, quantitative, and analytical writing.
- 3) Copies of transcripts from MS and/or BS.