



University of Kentucky
Pigman College of Engineering
Department of Civil Engineering

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PhD Research Assistant Positions in Civil Engineering

The Department of Civil Engineering at University of Kentucky is seeking highly motivated PhD-level Research Assistants (RAs) for a major interdisciplinary project titled "Physical Modeling of Hillslope Response to Climate Forcings." This project aims to develop a better understanding of the thermo-hydro-mechanical behavior underlying climate-driven hillslope dynamics. The intent is to ultimately be able to forecast weather-induced landslides.

Two PhD-level RAs are being recruited for this project. RA #1 will conduct research related to acquisition and data analytics of remote sensed data pertaining to landslide-prone hillslopes; scale-matching and assimilating remote sensed data and field geologic and hydrologic data; and spatiotemporal models characterizing climate-driven hillslope dynamics. RA #2 will conduct research that will require using artificial intelligence for feature extraction of very large meteorologic, geomorphic, and geologic datasets; developing temporal and spatial thermo-hydro-geomechanical models; developing climate-driven predictive analytics; and developing a web-based data visualization platform.

Candidates should have a Master's degree in civil engineering or an equivalent, with a degree concentration in landslide or other natural hazard engineering, or geotechnical engineering with an emphasis on slope stability in unsaturated soils, or geological engineering/engineering geology with an emphasis on modeling physical systems under climate forcings, or geo-engineering with an emphasis on modeling and analytics of remotely sensed hillslope data.

Ideally, candidates should possess strong research and programming skills, experience with modeling and data analytics, effective written and oral communication skills, and a strong work ethic. Successful candidates must demonstrate notable academic scholarship through pertinent research activity, published works in reputable technical journals, and published works in international conference proceedings.

These multiyear fully funded positions include a 12-month stipend, tuition, fees, and student health insurance. The start date is Spring 2025. Interested applicants should email Dr. L. Sebastian Bryson (sebastian.bryson@uky.edu) and submit their CV, transcripts, and evidence of academic scholarship.

The University of Kentucky is located in the city of Lexington, known for its vibrant culture, excellent quality of life, and beautiful landscapes. For more information about our department, please visit our [website](#). Detailed information about the admissions criteria and program requirements can be found in our [Graduate Handbook](#).