

POSITION ANNOUNCEMENT

POSITION TITLE: Postdoctoral Researcher

APPLICATION DEADLINE: Review begins March 21, 2022, and will continue until a qualified pool of candidates is received.

TENTATIVE START DATE: Prefer January 9, 2023, exact start date is negotiable.

SALARY, EMPLOYMENT STATUS, AND FRINGE BENEFITS: This position is funded for three years with an expected salary of \$50,000 annually. Annual professional development budget. Other benefits include university staff privileges; 176 hours of paid vacation earned per year, 96 hours of sick leave earned per year, nine paid holidays plus one discretionary day, a retirement program, medical & dental insurance, life and disability insurance, other benefit plan options, and State of Kansas discounts offered by various vendors. KU also offers employees educational and professional development opportunities. The initial appointment will be for one year with the expectation of renewal assuming satisfactory performance.

POSITION OVERVIEW:

We are looking for a postdoctoral researcher with a passion for groundwater sustainability and socio-environmental research to contribute to an NSF-funded project investigating the social and environmental factors that influence the effectiveness, resilience, and sustainability of self-governing groundwater conservation programs in Kansas and Colorado. The successful candidate will lead the development of an open source Crop-Hydrological-Agent Modeling Platform (CHAMP) that will couple together groundwater models, crop models, and agent-based models to investigate feedbacks and interactions among humans and water resources in irrigated agricultural landscapes. The postdoc and other project members will use CHAMP to evaluate factors affecting the resilience and sustainability of groundwater-dependent agriculture in Kansas and Colorado. Thus, the ideal candidate would have strong technical skills for working with and coupling social and environmental models, an interest in advancing human-water systems theory, and a desire to engage with an interdisciplinary team of researchers.

This position is based at the Kansas Geological Survey, a research center within the University of Kansas. This postdoc will be part of the HydroEcology of Anthropogenic Landscapes group (HEAL@KGS) supervised by Sam Zipper (<https://www.samzipper.com>) and will work closely with collaborators at Virginia Tech, Colorado School of Mines, and Purdue University.

RESPONSIBILITIES:

35%- Develop coupled socio-environmental modeling tools.

35%- Use modeling tools and data analysis to conduct socio-environmental research.

20%- Disseminate findings through conference presentations, publications, and open-source code.

10%- Service to the discipline and institution through participation in activities that may include collaboration with other KGS researchers, scientific peer review, serving professional societies, and public outreach and education

REQUIRED QUALIFICATIONS:

Evaluation of the following requirements will be made through (1) descriptions of research and educational experiences in cover letter, (2) record of accomplishments in resume/curriculum vitae, (3) information from professional references, and (4) transcripts.

1. Ph.D. in a discipline related to water, environmental, and/or agricultural science or engineering, conferred no more than 4 years prior to the start date.
2. Experience working with at least two of the following types of models: groundwater, crop, and/or agent-based.
3. Coding experience in Python or a comparable language (R, MATLAB, Julia, etc.).
4. Experience working both independently and collaboratively.
5. Strong communication skills as evidenced by peer-reviewed publications/conference presentations.

NOTE: To be appointed at the Postdoctoral Researcher title, it is necessary to have the PhD in hand. Appointments made without a diploma or certified transcript indicating an earned doctorate are conditional hires and are appointed on an acting basis not to exceed six months. Upon verification of degree the appointment will be extended to its full duration.

PREFERRED QUALIFICATIONS:

1. Experience with coupling models and/or high-performance computing.
2. Familiarity with irrigated agricultural landscapes.
3. Experience working with stakeholders on issues related to water management.

APPLICATION PROCEDURE:

Apply online only at <https://employment.ku.edu/staff/21278BR>.

Upload the following information:

1. Cover letter (max 2 pages) including how you meet the required and preferred qualifications, your career goals, and why you are excited about the position.
2. Full CV.
3. Contact information for 3 references (relationship, email address, and phone number)
4. College and graduate school transcripts (unofficial copies acceptable).

Review of applications will begin March 21, 2022.

CONTACT INFORMATION:

For further technical information about the position, contact Sam Zipper at samzipper@ku.edu.

For further information about other aspects of the position, contact Annette Delaney at adelaney@ku.edu or (785) 864-2152.

KANSAS GEOLOGICAL SURVEY: The Kansas Geological Survey (KGS) is a research and service division of the University of Kansas that investigates and provides information about the state's geologic and groundwater resources. The KGS has no regulatory authority and does not take positions on natural resource issues.

KGS scientists pursue research related to surface and subsurface geology, energy resources, groundwater, and environmental hazards. They develop innovative tools and techniques, monitor earthquakes and groundwater levels, investigate water-quality concerns, and map the state's surface geology. Their analyses, findings, and data are shared with the scientific community and general public through publications, online resources, and presentations. The KGS also houses thousands of oil and gas and water well records filed with the state over several decades as well as thousands of rock cores and cuttings brought to Earth's surface during oil and gas drilling.

The main headquarters of the KGS is in Lawrence on the west campus of the [University of Kansas](#), and the [KGS Well Sample Library](#) is in Wichita. Between the two locations, the KGS has a staff of approximately 115 employees, including 35 student employees. The KGS reports to the [Vice Chancellor for Research](#) at the University of Kansas and has a 12-member [advisory council](#) to provide review and guidance.

[More...](#)

LAWRENCE: A city of approximately 95,000, Lawrence is located on a rolling landscape 35 miles west of the major metropolitan area of Kansas City and 20 miles east of Topeka, the state capital. Home to [Haskell Indian Nations University](#) (<http://www.haskell.edu>) as well as KU, Lawrence offers the cultural and athletic events of a university setting. For more information on Lawrence, please visit the [Lawrence Convention and Visitors Bureau](#) (<http://www.visitlawrence.com>), the [Lawrence CyberVillage](#) (<http://www.ci.lawrence.ks.us>), or the [City of Lawrence](#) (<http://www.lawrenceks.org>) web pages.

The University of Kansas prohibits discrimination on the basis of race, color, ethnicity, religion, sex, national origin, age, ancestry, disability, status as a veteran, sexual orientation, marital status, parental status, gender identity, gender expression and genetic information in the University's programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Director of the Office of Institutional Opportunity and Access, IOA@ku.edu, 1246 W. Campus Road, Room 153A, Lawrence, KS, 66045, (785)864-6414, 711 TTY.

