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CEE Dept. Announces Water Cluster Hire | College of Engineering

USU College of Engineering

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Do you want to conduct relevant research and train the next generation of engineers and scientists to address our nation’s critical water problems?

Click Here to Apply

The Department of Civil and Environmental Engineering (CEE) seeks talented applicants for a cluster hire of three tenure eligible positions at the assistant or associate level whose research will yield more holistic approaches to solving water problems in natural, built, and/or agricultural environments. We seek bright, creative and interdisciplinary researchers who can increase Utah State University’s (USU) capacity to lead and develop the next generation of resilient solutions to water problems in these linked environments. We especially seek applicants with the passion and ability to work with others from a broad range of disciplines to advance fundamentally new and innovative ideas to study and solve unanticipated and emerging problems.

This cluster hire builds on existing CEE and Utah Water Research Laboratory (UWRL) strengths in hydrology, hydraulics, hydroinformatics, water resources management, irrigation, and environmental engineering. CEE and UWRL faculty, in collaboration with colleagues across the USU campus, conduct cutting edge water research that contributes to addressing growing societal challenges surrounding water and advances basic understanding in water sciences. We seek new colleagues who can conduct innovative field experiments, carry out laboratory studies, develop new modeling approaches, and/or leverage advances in instrumentation, remote sensing, cyberinfrastructure, computing, and visualization to address critical challenges in protecting and managing water resources. We seek applicants who can advance the theme of integrated, resilient solutions to water problems across natural, built, and agricultural environments and develop ways to better manage water in these environments in the face of anticipated short- and long-
term changes at local, regional, or larger scales. We are most interested in attracting creative and talented individuals that will become world leaders in water related research. We are especially interested in applicants who will take advantage of collaborative opportunities with other faculty within the CEE department and with colleagues in other colleges and departments across the USU Water Community (see e.g. http://water.usu.edu, https://climateadaptation.usu.edu/people/faculty/). Topical research foci may include (but are not limited to):

- Develop a new generation of spatially distributed hydrologic models that integrate biological, water quality, and physical processes across natural, built, and agricultural landscapes,
- Data and information systems that integrate information from multiple sources to advance data-based and data-intensive approaches to solving water problems,
- Quantify and forecast water uses in food, energy, transportation, and other resource systems and predict how uses will change as population grows and land use changes,
- Model urban, agricultural, and environmental water requirements, use behaviors, and expected changes as a result of climate change and urban growth,
- Characterize impacts of changing infrastructure and its operation on water quantity and quality in surface and groundwater systems,
- Develop strategies to remove, modernize, or leapfrog aging infrastructure in the face of urbanization and changing user preferences for environmental amenities and services,
- Develop flexible modeling, visualization, and engagement tools that will help competing water users better meet their water needs in the face of rapid population growth, urbanization, climate change, aging infrastructure, and shifting societal values for water.

Utah State University has a strong dual career program and recognizes that some of the most qualified candidates may have highly-qualified partners who also seek employment. For additional information, see https://www.usu.edu/provost/faculty/work_and_family/dual_career.cfm. Utah State University is an equal opportunity/affirmative action employer and we welcome applications from underrepresented groups. For more information, click here to be directed to the official position announcement.