Postdoctoral Scholar in Engineered Water Systems

College of Engineering and Physical Sciences
Department: Civil and Environmental Engineering

Description: The Postdoctoral Scholar will be involved in both independent and collaborative research working closely with the environmental and water resources engineering faculty in the Department of Civil and Environmental Engineering (CEE) in the broad field of Engineered Water Systems. The Postdoctoral Scholar will collaborate with and be mentored by faculty in the ABET-accredited environmental engineering program. We seek candidates who can enhance diversity in our undergraduate and graduate programs through research and teaching and can work in a team environment in one or more of the following emphasis areas:

1. **Water Systems** including research on legacy contaminants or contaminants of emerging concern, nutrient, and/or pathogen removal processes and/or design and development of treatment technologies or sensors for drinking water.

2. **Wastewater Systems** including research on the processes and advanced technologies/sensors for the treatment, reuse, or recovery of water, nutrients, or energy resources from waste/wastewater.

3. **Environmental Chemistry**, including the identification, understanding, and modeling the transformation, fate, capture, and mitigation of legacy and emerging contaminants such as Pharmaceutical and Personal Care Products (PPCPs) and Per- and Polyfluoroalkyl substances (PFAS) in engineered and natural systems.

The fields of engineering for “one water” as well as water safety, resiliency, and sustainability have been increasingly emphasized as a critical state and national need with the rising awareness and detection of emerging (e.g., PFAS and PPCPs) and legacy contaminants (e.g., lead and arsenic). To address this critical need, we have identified strategic hiring areas within the field of Engineered Water and Wastewater Systems, that tie to: (1) UNH's goal to "Embrace New Hampshire", (2) New Hampshire Department of Environmental Services’ strategic goal to "Protect New Hampshire's Natural Resources and High Quality of Life," and (3) NSF 10 big ideas "Growing Convergence Research" and the "Future of Work at the Human-Technology Frontier."

The Scholar’s responsibilities include teaching one senior elective/graduate class per year in the area of engineering water systems. It is expected that the Scholar publish their work in high impact journals and conference proceedings, submit research grant proposals as a single PI and collaboratively, develop external collaborations, and engage in their professional community.

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