



Staff Researcher and Data Analyst
Position available starting December 1, 2021
Location: Water Technology Research Center
Henry Samueli School of Engineering and Applied Science

Job Description

UCLA's Water Technology Research (WaTeR) Center has a position open for a Staff Researcher with experience in the management of water systems infrastructure, water quality, and drinking water finance. The mission of the WaTeR Center is to advance technologies of water production in order to develop new and affordable alternative sources of potable, irrigation, and consumptive water use. The Center's activities encompass science-based innovation, technology evaluation, advanced education, and rapid information dissemination.

The Staff Researcher will join the WaTeR Center team that has developed, installed and currently deploying fully automated and remotely managed wellhead water treatment systems in three small, disadvantaged communities in the Salinas Valley. These communities rely on local well water, which is not suitable for potable use due to high nitrate level in their groundwater. Accordingly, the goal of the project is to demonstrate the concept of Distributed Smart Water Treatment (DSWT) Systems with central monitoring and management infrastructure that will lower the cost of deploying and managing multiple water treatment systems. The ultimate goal of the project is to demonstrate the capability of producing high quality water drinking water at an affordable price that will make it attractive for commercial or non-profit entities to manage and expand the DSWT approach. In this regard, The Staff Researcher position provides unique opportunities to be involved with and contribute to a globally visible program in water technology, interact with water agencies and the water industry.

Qualifications

Education: An advanced Degree in a discipline (M.S. or Ph.D. in environmental policy, science or engineering) that includes training in water quality and options for treatment, water resources management, data analytics, and techno-economic analysis.

Experience: Working familiarity with large datasets, public agency data, data analytics, and software tools to communicate results of data analysis on different platforms. Familiarity with basic water treatment approaches and related infrastructure and finance and drinking water regulations. Experience with basic groundwater hydrology and contaminant transport would be desirable.



Major Responsibilities

Water Quality Monitoring and Reporting:

- (i) Coordinate grab sampling and testing with a California State Certified Laboratory and ensure that all results are available for review by regulators;
- (ii) Review and aggregate data on water quality and other parameters stored in the Regional Management System;
- (iii) Organize laboratory and online water quality and operational data into monthly reports for permit compliance; and
- (iv) Assist in analysis of trends based on operational and water quality data and preparation of relevant reports.

Cost Analysis: Work with the project cost data to analyze various cost elements (e.g., labor, sub-contracts, CapEx and OpEx, as well other costs related to permitting and permit compliance), and translate cost data into water rate data for the benefit of the water system owners and tenants.

Reliability Analysis: (i) utilize logs of treatment system operations to report downtime on the system, and the reasons for downtime. The researcher will also document when, and how long each local water/septic system problem lasts that results in down time for the treatment system.

Water System Operations: as part of the effort, it will be most beneficial for the researcher to become a certified water system operator (T-2 level, acquired while working at the Center through short online training) and become familiar with the basic operation of the water treatment system.

Outreach: (i) Assist in preparation of presentations/reports to interested stakeholders and entities with the qualifications to manage a virtual water system; and (ii) Manage content for (user-friendly) communications regarding project status/accomplishments through the Project website.

Reports: Assist the Principal Investigator and the Co-Principal Investigator in the preparation of project reports and project-derived scholarly publications.

Salary: Commensurate with experience and graduate degree

Benefits: Health insurance (for full-time employment), paid time off

How we are responding to COVID-19

The University of California adheres to all local, State, and Federal guidelines regarding COVID-19 precautions.

How to Apply:

If you are interested in applying for this position, please submit your resume/CV and contact information for three references to Professor Yoram Cohen (Email: yoram@ucla.edu)

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