HYDROLOGIC RESEARCH CENTER

A Nonprofit Research Corporation

Engineer Position

Job Description

The Hydrologic Research Center (HRC) is a public benefit, non-profit research, technology transfer and training organization located in San Diego, California USA. HRC is dedicated to the development of effective and sustainable solutions to global water issues. HRC's goal is to provide a conduit for academic and other up-to-date research to be made suitable for effective application to field operational problems that involve water management and flood disaster mitigation. Please visit the HRC website for more details: https://www.HRCwater.org.

HRC is in search of an engineer specializing in computational hydraulics and its applications. As part of the HRC science team, you will be working with other researchers and computer engineers in the development and implementation of tailored numerical modeling solutions for a variety of channel flow applications in local and international projects. The position workload requires numerical modeling and predictions in open channel hydraulics and sediment transport, scalable flash flood modeling, urban flood modeling with integrated hydraulics structures, watershed management and flood mitigation strategies, and quantitative and statistical analysis of model results. Training of end-user clients on the numerical codes and scientific background and theory is a significant part of the position. The prospective candidate will have a solid research background in hydraulics and hydrology or other related fields. Strong quantitative, scientific computing, and communication skills are essential for the position.

Specific Requirements

- Ph.D. in hydraulics, hydrology or allied field with an emphasis on numerical modeling.
- Demonstrated experience in scientific computing in channel routing.
- Demonstrated experience in flash flood modeling for complex urban channel networks and development of mitigation measures.
- Demonstrated experience in modeling of hydraulic structures (e.g., reservoirs, sluice gates, diversion channels, etc).
- Demonstrated experience in development of real-time operational hydraulic/hydrologic modeling systems.
- Experience with Geographic Information Systems (GIS) specific to watershed delineation and validation, and post-processing for hydrological and hydraulics processes with various spatial scales is a plus.
- Proficiency with programming languages, such as: FORTRAN, C, Matlab and Bash shell scripting.
- Ability to clearly communicate research results, in English, with various audiences (technical and non-technical) in the form of technical reports, training materials, peer reviewed papers and presentations.
- Experience with teaching and technology transfer desired.

- Valid passport and ability to travel internationally is required for this position.

We are only accepting applications from candidates authorized to work in the United States.

Salary commensurate with qualifications.

Interested applicants should submit a letter of intent, a CV, and arrange for three letters of reference to be sent upon request. Applications should be sent via email to admin@HRCwater.org, include "Attn: Dr. Theresa Hansen" in the subject line.

The Hydrologic Research Center is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability, age, protected veteran status, gender identity or sexual orientation.