ERDC
Engineer Research and Development Center

The Coastal and Hydraulics Laboratory, an integral subset of the U.S. Army Engineer Research and Development Center, is currently recruiting interdisciplinary researchers with science, math, and engineering backgrounds.

The Coastal and Hydraulics Laboratory (CHL) in the U.S. Army Engineer Research and Development Center (ERDC) is the Army's premier water resources research entity. The CHL develops solutions to our Nation's most challenging water resources problems through research, development and application of cutting-edge science, engineering, and technology for the Army, Department of Defense, civilian agencies and the public. Our efforts address water resource challenges in groundwater, watershed, rivers, estuaries, harbors and wetlands. Research programs range from design guidance to three-dimensional numerical models. The CHL partners with government agencies, academia, and industry to solve complex problems.

The Hydrologic Systems Branch (HSB) is one of the eight Branches in the CHL. The HSB conducts research and development in the area of computational hydrology, including development and application of modeling capabilities for providing effective and efficient solutions to military and civil works issues in surface water, groundwater, and watersheds. The HSB also participates in the USACE Reachback Operation Center (UROC) to perform hydrologic analysis in support of warfighter exercises, contingency operations, disaster responses, etc. We aim at providing our sponsors and customers the best solutions to problems related to (a) surface water hydrology, (b) groundwater hydrology, (c) hydrometeorology, (d) integrated system of hydrodynamics, sediment and constituent transport, and (e) morphology change in various hydrologic and hydrodynamic systems through computer modeling.

There are job opportunities, for both internship and permanent positions, within the HSB for individuals interested in computational sciences for hydrologic/hydraulics systems. These include work on numerical methods, data analysis, data visualization and post-processing, as well as user-interface and application development. Desired skills include familiarity with programming in Python, C, C++, C#, JavaScript, MATLAB, R, and/or Fortran. Positions at various levels of experience are available. Coursework or experiences in linear algebra, differential equations, statistics, numerical methods, GIS, high performance computing, and some background in fluid dynamics, mathematics, physics, civil engineering, data science, computer science, and/or surface and subsurface hydrology is a plus. Higher-level positions are open for candidates with demonstrated expertise and experiences in computational modeling, numerical methods for partial differential equations, inverse problems, or model reduction techniques.

ERDC careers offer competitive salaries, graduate-level education, and other professional development opportunities, outstanding benefits, opportunities for exciting world travel, and a unique chance for U.S. Citizens to serve the Nation! For more information on the ERDC and CHL, go to http://www.erdc.usace.army.mil. For more information on career opportunities with the ERDC-CHL Hydrologic Systems Branch, contact Dr. Hwai-Ping (Pearce) Cheng, Chief of the Hydrologic Systems Branch, 601-634-3699 or hwai-ping.cheng@usace.army.mil.