

Opportunity Title: Coastal Dune Researcher - ERDC Coastal Hydraulics Laboratory
Opportunity Reference Code: ERDC-CHL-2023-0013

Organization U.S. Department of Defense (DOD)

Reference Code ERDC-CHL-2023-0013

How to Apply Click on *Apply* now to start your application.

Description The U.S. Army Engineer Research and Development Center's Coastal & Hydraulics Laboratory (CHL) performs research on ocean, estuarine, riverine, and watershed systems in support of the U.S. Army Corps of Engineers (USACE) and the Department of Defense (DOD) Task Force in support of the Ocean Commission. A multi-disciplinary team of scientists, engineers, and support personnel work in CHL's internationally known, unique facilities. This team has developed state-of-the-art experimental and computational models for solving water resource problems worldwide. Physical facilities of approximately 1.7 million square feet and high-performance computing facilities at the DOD Supercomputing Research Center (<http://www.erdchpc.mil>) are the basic infrastructure for producing cutting-edge products for successful coastal, inland water resources, and navigation management. CHL work, although primarily in support of the DOD and the Corp's districts, also interfaces with other federal, state and local agencies, academia, conservation groups, and the general public, as appropriate. The Research Participation Program for USACE-ERDC-CHL provides opportunities to participate in new and on-going applied research and development projects. Research projects range from design guidance to three-dimensional computational models. Focus is placed on inland and coastal navigation, military logistics over the shore, dredging, flood control, storm and erosion protection, waterway restoration, fish passage, hydro-environmental modeling, water/land management, and other water and sediment-related issues facing the nation. For more information about USACE-ERDC-CHL, please visit <https://www.erdchpc.usace.army.mil/Locations/CHL/>.

What will I be doing?

As an ORISE participant and under the guidance of a mentor, you will have the opportunity to conduct research alongside CHL staff and other primary researchers in a real-world laboratory environment and gain exposure to modern research technologies and techniques. You will research with state-of-the-art sediment transport and morphology change models being developed by the Coastal and Hydraulics Laboratory to simulate landform evolution in coastal systems. Specifically, this research will target the development and application of the Aeolis aeolian sediment transport model. This project will include working with existing topographic and ecological field data for model input and assessment of model skill for US East Coast and West Coast applications. Opportunities may exist for you to collect additional field data collection as part of model validation and improvement efforts. Travel will be required to ERDC-CHL Field Research Facility in Duck, NC and to a regional or national conference. You could have an opportunity to first-author technical publications.

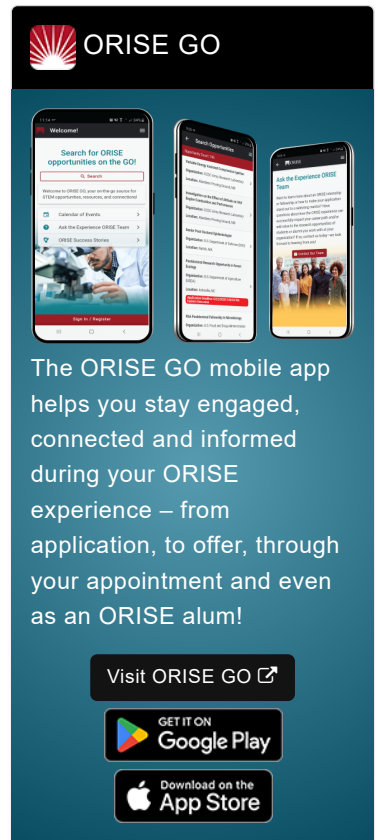
Why should I apply?

This fellowship provides the opportunity to independently utilize your skills and engage with experts in innovative ideas to move the proposed research forward.

Where will I be located? Location Varies


What is the anticipated start date?


ERDC-CHL is ready to make an appointment immediately. Exact start date will be determined at




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the time of selection and in coordination with the selected candidate.

What is the length of the appointment?

This ORISE appointment is a full-time twelve-month opportunity. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

What are the benefits?

You will receive a stipend to be determined by ERDC-CHL. Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through ORISE
- Relocation Allowance
- Training and Travel Allowance

About ORISE

This program, administered by Oak Ridge Associated Universities (ORAU) through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and DoD. Participants do not enter into an employee/employer relationship with ORISE, ORAU, DoD or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. For more information, visit the [ORISE Research Participation Program at the U.S. Department of Defense](#).

Qualifications The qualified candidate will be currently pursuing or have completed a bachelor's, masters or doctoral degree within the last 60 months in Computer Programming or similar discipline.

Skills and knowledge in scientific computer programming and data processing required. Knowledgeable in programming languages such as Python preferred. The ideal candidate must have skills and knowledge with numerical modeling, Earth and Geosciences, Engineering, Mathematics, Statistics and other Physical Sciences.

A complete application consists of:

- Zintellect profile
- Essay Questions - The application includes questions specific to the opportunity.
- Academic Records - An official transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted.
- One (1) recommendation - Your application will be considered incomplete and will not be reviewed until one recommendation is submitted. We encourage you to contact your recommender(s) as soon as you start your application to ensure they are able to complete the recommendation form and to let them know to expect a message from Zintellect. Recommenders will be asked to rate your scientific capabilities, personal characteristics, and describe how they know you. You can always log back in to your Zintellect account and check the status of your application. The status will go from Started to Submitted and then to

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Completed once the required recommendations have been received.

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system. If you have questions, send an email to usace@orise.orau.gov. Please list the reference code of this opportunity in the subject line of the email. All documents must be in English or include an official English translation. Please understand that ORISE does not review applications or select applicants; selections are made by the sponsoring agency identified on this opportunity. All application materials should be submitted via the "Apply" button at the bottom of this opportunity listing. Please do not send application materials to the email address above.

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Point of Contact [Debbie at ORISE](#)

**Eligibility
Requirements**

- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- **Minimum Overall GPA:** 3.00
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Communications and Graphics Design** ([6](#) )
 - **Computer, Information, and Data Sciences** ([17](#) )
 - **Earth and Geosciences** ([21](#) )
 - **Engineering** ([27](#) )
 - **Environmental and Marine Sciences** ([14](#) )
 - **Life Health and Medical Sciences** ([48](#) )
 - **Mathematics and Statistics** ([11](#) )
 - **Physics** ([16](#) )
 - **Social and Behavioral Sciences** ([29](#) )
- **Age:** Must be 18 years of age