Opportunity Title: Sustainable Engineering - USACE Environmental Laboratory
Opportunity Reference Code: ERDC-EL-2023-0014

Organization	U.S. Department of Defense (DOD)
Reference Code	ERDC-EL-2023-0014
How to Apply	Click on *Apply* now to start your application.

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Description The Environmental Laboratory (EL) is one of the seven laboratories of U.S. Army Engineer Research and Development Center (USACE-ERDC), which is the Army Corps of Engineers' integrated research and development (R&D) organization. EL provides solutions to environmental challenges for the U.S. Army, the Department of Defense and the Nation through environmental science and engineering research and development. Researchers in EL conduct research in ecosystem science and technology, environmental resiliency, environmental sensing, ecological modeling and forecasting, risk and decision science, environmentally sustainable material, systems biology, climate change, computational chemistry, environmental chemistry and environmental security.

What will I be doing?

Under the guidance of a mentor, you will research projects focused on various aspects of life-cycle assessment (LCA) methodology and modeling. Projects will focus on Environmental Life-Cycle Assessment issues to assess the environmental impacts of both current and new and emerging materials. Specific projects include the development of engineered technologies for risk mitigation and management of per/polyfluoroalkyl substances (PFAS) on army installations and the identification and development of PFAS-free chemical formulations. You will have an opportunity to write proposals, publications, technical reports and presentations.

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?

Exact start date will be determined at the time of selection and in coordination with the selected candidate.
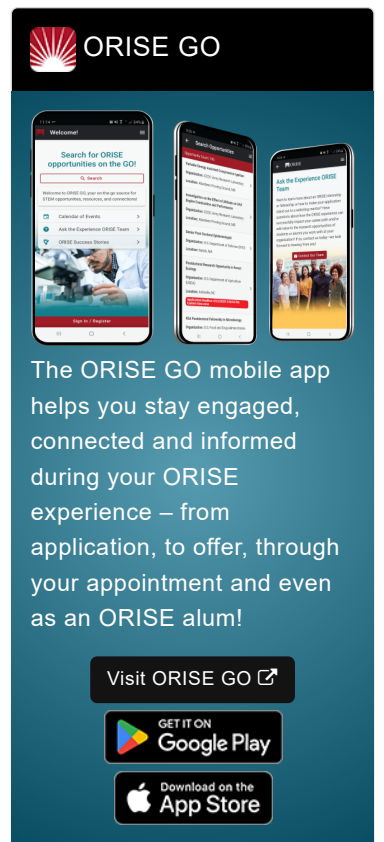
What is the appointment length?

This appointment is a full-time twelve-month research appointment. Appointment 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-EL. Stipends are typically based on a 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

Master's or doctoral degree received or currently pursuing (degree must be received by May 31, 2023) in Engineering or related discipline.

Preferred skills include:

- Knowledgeable in life-cycle assessment methodology and modeling, including developing detailed life-cycle inventories for specific and novel technological products, contaminant issues released from industrial processes, and waste streams.
- Experience with general computational and modeling experience, such as coding languages (e.g., R, Python, Julia), and computational experience in LCA and Sustainability method development and sensitivity analyses; in particular, a candidate that can develop and modify LCIA methods for the Army's current risk frameworks and environmental performance metrics is highly desired.
- General experience with laboratory methods and protocols is desired, although not required.
- Good communication, and interpersonal and writing skills are essential as well as a willingness to research in a highly multidisciplinary environment.

Some travel for research expeditions and/or meetings and conferences is likely. The ideal candidate will demonstrate an ability to research in an interdisciplinary environment and have research knowledge of Life Cycle Assessment methodology.

Application Requirements

A complete application consists of:

- Zintellect Profile
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - For this opportunity, 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. Click here for detailed information about acceptable transcripts.
- One 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.

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. All documents must be in English or include an official English translation. 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. 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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Eligibility Requirements	**Citizenship:** U.S. Citizen Only **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 5/31/2023 12:00:00 AM. **Discipline(s):** **Chemistry and Materials Sciences** (12 👁) **Computer, Information, and Data Sciences** (17 👁) **Engineering** (27 👁) **Environmental and Marine Sciences** (14 👁) **Life Health and Medical Sciences** (48 👁) **Age:** Must be 18 years of age **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).