

**Opportunity Title:** Environmental Engineer - Indoor Climate Modeling (Masters or PhD)

**Opportunity Reference Code:** ERDC-EL-2022-0009

**Organization** U.S. Department of Defense (DOD)

**Reference Code** ERDC-EL-2022-0009

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

**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 collaborate with federal employees and contractors on research for a project titled "Integrating Moisture Vulnerability and Monitoring Prioritization into Existing DoD Building Stock Sustainment Management". You will be exposed to real-world problems affecting DoD installations and participate in the development of new decision support. You will leverage existing building data and research to gain insight into how to proactively manage the risk of moisture-related building degradation. The research involves finding creative ways integrate existing models, asset condition data, and risk-based thinking, and potentially cutting edge technology. You will gain experience in exposure to and use of EnergyPlus applications, experience in modeling with risk-based prioritization methodologies, and DoD building code criteria.

#### Why should I apply?

This internship provides the opportunity to independently utilize your skills and engage with experts in innovative ideas to move the proposed research forward. There are multiple opportunities available to engage in your applied research and evaluation interests.

#### Where will I be located?

The research may be conducted remotely or at the project location in Concord, Massachusetts or Vicksburg, MS. Travel to participating installations (4) will likely be necessary.


#### What is the anticipated start date?

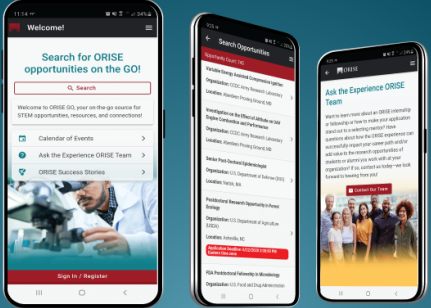
ERDC-EL is ready to make an appointment immediately. The exact start date will be determined at the time of selection and in coordination with the selected candidate.

#### 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,









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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 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

#### **Nature of the Appointment**

You will 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.

### **Qualifications**

You should have a Master's or Doctoral degree in Civil/Environmental Engineering, Architecture or similar discipline.

You should have experience/educational background in:

- Energy modeling, climate modeling, EnergyPlus, energy systems and data visualization, and/or cyber-physical systems.
- Climate modeling and building temperature modeling are skill-sets that will be useful in this project.
- Reviewing peer-reviewed journal articles, possess proficient technical writing skills, and intellectual leadership skills.

A complete application consists of:

- Zintellect profile
- Educational and Employment History
- Essay Questions - The application includes questions specific to the opportunity
- 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.
- Current Resume/CV
- 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 Completed once the required recommendations have been received.

Submitted documents must have all social security numbers, student identification

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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](mailto: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 11:59:00 PM.
- **Overall GPA:** 3.00
- **Discipline(s):**
  - **Engineering** (27 👁)
- **Age:** Must be 18 years of age