

Opportunity Title: National Energy Technology Laboratory Postgraduate Research Program (PGRP)

Opportunity Reference Code: NETL-Postdoc-2023

Organization National Energy Technology Laboratory (NETL)

Reference Code NETL-Postdoc-2023

How to Apply A complete application consists of:

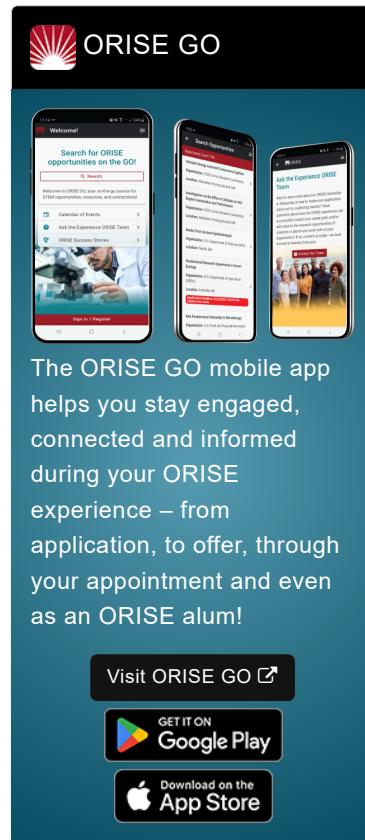
- An application, including academic history, work history experiences, and honors/awards
- Description of your goals, related experience, and related skills – refer to NETL's Core Competencies and ongoing projects when applicable
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations
You must provide contact information for at least two recommenders in your application. The first two recommendations received will be attached to your application for review by NETL. You may click the "send" (paper airplane) button to send the recommendation request email immediately after entering their information prior to submitting your application; if not, a request will automatically be sent when you submit your application. Your recommenders will receive an email with a subject line of "[Your Name] - ORISE Recommendation Request - [your email]", from Zintellect@ornl.gov. This email will include information on the opportunity to which you have applied, as well as a secure link to submit a recommendation for you for this application. If you ask the same person to submit a recommendation for you for multiple applications in Zintellect, they must click the unique link in each email request, but will be given the opportunity to copy over what they had previously submitted.

All documents must be in English or include an official English translation.

If you have questions about the application process, contact NETLinfo@ornl.gov.


Connecting with NETL's Core Competencies


The Postgraduate Research Program supports projects in all areas across the Lab. Most internship opportunities are in NETL's Research and Innovation Center, collaborating on energy-related research, but there are also opportunities within facility operations, project management, and other mission support functions. To learn more about ongoing projects, you may visit the [NETL website](#) and browse news, core competencies, and more. NETL's core competencies include five focus areas that address long-range issues central to environmentally sound and cost-effective energy usage. The sixth core competency – program execution and integration – emphasizes strategic collaborations, market and regulatory analysis, technology transfer, and more. Click through to learn more about each area:




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1. [Strategic Systems Analysis and Engineering](#)
2. [Energy Conversion Engineering](#)
3. [Computational Science and Engineering](#)
4. [Materials Engineering and Manufacturing](#)
5. [Geological and Environmental Systems](#)
6. [Program Execution and Integration](#)

To learn more about specific areas, you may conduct a literature search through a relevant search engine. Your institutional library or local public library may provide access to specific databases. The NETL corresponding author(s) can provide more information on ongoing projects; do let them know once you have applied in Zintellect.

After you have submitted an application in Zintellect, you may reach out to internship.program@netl.doe.gov to express your interest in specific projects/areas and request to talk with potential mentors. Be as specific as possible while describing your interests to help us connect you with relevant staff. You must have a completed application in Zintellect to receive a response.

Application Tips

NETL values a combination of academic success, experience, and leadership potential as demonstrated in all aspects of your application. NETL's goal is to create, maintain, and support a [diverse environment](#) that encourages creative ideas and leadership. In the words of [Lab Director Brian Anderson](#), "our differences make us stronger and we're united in fostering inclusivity in all aspects of our research to drive innovation and deliver solutions for an environmentally sustainable and prosperous energy future." In your application, show us who you are!

To increase your chances of being selected for an appointment, we recommend:

1. Reading about NETL projects, and tailoring your responses to align with Laboratory focus areas. What parts of the project(s) are most interesting to you?
2. Spending sufficient time on your essay responses and your resume. Give yourself time to review your writing!
3. Ensuring that everything you submit is grammatically correct and clearly expressed.
 - Consider using a word processor to draft your answers and then copy and paste into the application.
 - Review and edit repeatedly until you have a strong response.
 - Ask someone whose judgement you trust to proofread it and make suggestions for improvement.
 - Efficient writing is valued over quantity of writing.
4. Submitting the application -- we can't select you if you don't submit an application!

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- To be considered for this opportunity, you must hit the "Save & Next" button after providing email addresses for your recommenders, then review the information on the Submit page. Mark if you agree to the listed terms, then click the final "Submit" button. You will receive an e-mail once the application is submitted, and the application will show it has a "Submitted" status on your Zintellect dashboard under "My Applications".
- Your application will not be considered complete until the required recommendations have been received. You can check the status of your recommendations on your Zintellect dashboard under "My Applications". You may "Manage" your recommendations to verify or update contact information, add another recommender, and resend the recommendation request email, as needed.

Selection Decisions

Selection decisions are made directly by NETL researchers and staff looking to host an internship, and may be made at any point throughout the year. Your application will be available to potential mentors for up to 12 months, at which point you may choose to renew it. You may withdraw your application at any time. We recommend connecting with NETL to express your interest in specific projects at NETL, and to learn more about the projects that may be able to support an internship in the future.

Application Deadline 12/31/2023 11:59:59 PM Eastern Time Zone

Description The National Energy Technology Laboratory's (NETL's) record of success has been built on understanding the future of energy and the technologies required to make that future possible. We've long touted our success in developing the technologies that took on acid rain in the 1970s and mercury in the early 2000s. More recently, NETL has a leading role in President Biden's ambitious climate goals, including a carbon emission-free power sector by 2035 and a net-zero economy by 2050.

Program Goals

The NETL Postgraduate Research Program (PGRP) is a high-intensity program designed to identify recent Master's and Doctoral graduates of high promise and to foster advanced skill development. It allows the postgraduate to systematically outline career goals and helps provide the means of achieving these goals. NETL principal investigators and leads serve as mentors to PGRP participants during the program. This interaction affords the postgraduate a unique opportunity to develop critical skills needed to become an independent professional.

The program goals include providing the opportunity to participants to:

- Develop skills and knowledge in their field of study
- Engage with new areas of basic and applied research
- Network with world-class scientists
- Exchange ideas and skills with the Laboratory community

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- Use state-of-the-art equipment
- Contribute to answers for today's pressing scientific questions
- Collaborate with the broader scientific and technical communities

Program Details

- **Mentored experience:** Selected applicants are matched with a mentor who provides active guidance throughout the appointment. Projects are designed to be hands-on; precise activities will vary based on the offered project match. Under the guidance of their mentor, participants may be involved in the entire project cycle, potentially to include literature review, experimental design, proposal writing, implementation, data capture, documentation, data analysis, data visualization, reporting, manuscript writing, and other activities.
- **Program Dates:** Appointment start date and end date varies based on project needs and the selected applicant's availability. New selections are typically made 2-3+ months prior to the desired appointment start date.
 - Individuals interested in an appointment starting in the fall are encouraged to apply by June 1st.
 - Individuals interested in an appointment starting in the spring are encouraged to apply by October 1st.
 - Individuals interested in an appointment in the summer are encouraged to apply by February 15th.
- **Duration:** Appointment duration varies based on project needs and the selected applicant's availability. Postgraduate appointments are typically offered for up to one year in length for the initial appointment period.
 - Post-Master's appointments are eligible for extensions up to three years.
 - Post-Doctoral appointments are eligible for extensions up to five years.
- **Hours per week:** Expected participation varies by appointment based on project needs and the selected applicant's availability. Appointments may be offered on a part-time basis (typically around 16-20 hours per week) or full-time basis (up to 40 hours of training or research per week). Most postgraduate appointments are offered on a full-time basis.
- **Location:** NETL typically hosts participants at our [Pittsburgh, Pennsylvania](#); [Morgantown, West Virginia](#); and [Albany, Oregon](#) locations.
 - Some projects require on-site participation. On-site offers may include funds to help offset costs associated with travel to the hosting location.
 - Specific projects may support off-site / remote participation; the hosting mentor could confirm.
 - All selected applicants must receive approval and clearance from the U.S. Department of Energy prior to their appointment starting. This process requires a physical presence in the United States of America.

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- **Stipend:** Participants receive a monthly stipend based on their educational level. Stipend payments are taxable as an educational benefit. Stipends for full-time participation start at:
 - Post-Master's stipends start at \$3720 per month
 - Post-Doctoral stipends start at \$5518 per month
- **Inbound travel reimbursement:** On-site participants who must travel over 50 miles to the hosting NETL facility to begin their appointment may be eligible for inbound/outbound travel reimbursement. Details would be included in the appointment offer letter.
- **Housing:** Participants are responsible for identifying and making arrangements for housing prior to their appointment start date.
- **On-station travel:** In some cases, participants may be eligible for on-station travel to perform field visits, visit collaborator locations, present at or attend conferences or other technical meetings, and other appointment-related activities.
- **Deliverables:** To document the effectiveness of the program, participants are required to submit a pre-appointment and post-appointment survey, as well as a reflection on their appointment experience when they renew or end their appointment. The reflection should summarize their project(s), additional activities, and overall experience. Details are provided as the appointment end date approaches.

Participants may also have the opportunity to contribute to manuscripts, journal articles, book chapters, conference presentations, posters, patents, and other publications as a part of their appointment. Such achievements should also be reported to ORISE; additional details are provided after an offer has been accepted.

Qualifications Do describe any relevant experience you have in your application. Relevant skills that you may have from non-research experiences could include problem-solving, communication, teamwork, organizational skills, and more.

To be eligible for this opportunity, you must:

- Have one of the following academic statuses
 - A recent Master's degree graduate^{*1,*2} who has received the Master's degree from a regionally accredited college/university within the last 36 months at time of application
 - A recent Doctoral degree graduate^{*1,*2} who has received the Doctoral degree from a regionally accredited college/university within the last 60 months at time of application
- Have an overall GPA of 2.5/4.0 or higher
- Be at least 18 years of age at the time of application
- Provide confirmation of coverage under a health insurance plan prior to the beginning of the internship

^{*1} Soon-to-be Master's and Doctoral degree graduates interested in a post-graduation opportunity are eligible to apply while still enrolled as a student, but would need to provide proof of degree completion prior to appointment

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start date if selected.












¹² Current students interested in a pre-graduation opportunity are invited to apply to [the Professional Internship Program](#).

Citizenship

This program does not have citizenship restrictions, although specific projects may have citizenship-based restrictions, depending on the sensitivity of the project. Demographic information, including citizenship information, that you provide in your application is not available to potential mentors reviewing applications. If a selected applicant is not a U.S. citizen, they must obtain and provide proof of a valid immigration status allowing us to pay them a stipend. More information may be found at the [Guidelines for Non-U.S. Citizens webpage](#). Once an offer has been made, the ORISE Immigration Services Office will reach out to the selected applicant with details about required immigration-status-related documents.

Selected applicants who are foreign nationals must also receive approval and clearance from the U.S. Department of Energy prior to their appointment starting. This process is initiated by NETL after an appointment offer has been accepted. This process may take more than seven weeks.

Point of Contact [Ryan Cross](#)

- Eligibility Requirements**
- **Degree:** Master's Degree or Doctoral Degree.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Communications and Graphics Design** ([2](#) )
 - **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](#) )
 - **Science & Engineering-related** ([2](#) )
 - **Social and Behavioral Sciences** ([28](#) )
 - **Age:** Must be 18 years of age

- Affirmation** I certify that I meet at least one of the following academic status eligibility criteria, at a regionally accredited academic institution:
- I am currently pursuing a Master's degree and will complete the degree prior to appointment start.
 - I am currently pursuing a Doctoral degree and will complete the degree prior to appointment start.
 - I received a Master's degree no more than 36 months before the date of application.

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- I received a Doctoral degree no more than 60 months before the date of application.