

Opportunity Title: Doctoral Thesis Research in Marine Energy, Hydrokinetics

Opportunity Reference Code: DOE-EERE-RPP-WPTO-2019-3001

Organization U.S. Department of Energy (DOE)

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Application Deadline 12/26/2019 5:00:00 PM Eastern Time Zone

Description The U.S. Department of Energy (DOE) Office of Energy Efficiency & Renewable Energy (EERE), Water Power Technologies Office (WPTO) conducts early-stage research and development (R&D) to strengthen the body of scientific and engineering knowledge supporting industry efforts to develop new technologies that increase U.S. hydropwer and marine and hydrokinetics (MHK) generation. Marine and hydrokinetic technologies convert the energy of waves, tides, and river and ocean currents into electricity and have the potential to provide millions of Americans with locally sources, clean, and reliable energy. This program is designed to provide graduate thesis research opportunities in marine and hydrokinetics at DOE laboratories and other DOE/WPTO-approved facilities.

What will I be doing?

As a participant with the *WPTO-MHK Graduate Student Research Program*, you will get to advance your doctoral thesis utilizing the expertise, resources, and capabilities available at DOE laboratories, industry or other approved facility to accomplish your research goals, all while networking with top scientists in the field. You will enhance your education and training in marine and hydrokinetics, increase your marketability in these disciplines, gain access to top scientists and state-of-the-art equipment, and gain insight into research and career opportunities through your internship experiences. You will have the opportunity to collaborate and learn from experts researching, developing, and testing emerging technologies in marine and hydrokinetics.

You will conduct research at both your academic institution and at an external hosting facility conducting research in MHK. Because you are responsible for finding a host facility and securing a mentor, you will be embedded in a facility whose research aligns with your research goals and who can provide the resources you need for your research. Your mentor may also be a resource for your next career step!

Who do we want?

- Highly motivated doctoral students who are completing a doctoral thesis in an area of interest to WPTO, including but not limited to innovative technologies for clean, domestic power generation from marine and hydrokinetics technologies.
- Applicants who are able to independently seek and secure a hosting facility and mentor to host them for at least 6 months of the appointment.

Where will I be?

You will identify the host facility where you want to conduct your research and a potential mentor currently conducting or directing research in an area



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of importance to WPTO, including, but not limited to, technologies for clean domestic power generation from hydropower, waves, and tides. The minimum appointment period for this program is 6 months at the identified hosting facility

Apply Today! We will need a copy of your academic records, a resume, two letters of reference, and a research plan, including your proposed hosting facility and potential mentor. For more information and resources on research plans, visit <https://orise.orau.gov/mhk-research-program/>.

The benefits:

You will receive a competitive stipend, an allowance to offset the costs of health insurance, reimbursement for education and research travel and materials up to \$7,000, and limited tuition allowance. A relocation allowance of up to \$3,000 may be provided for eligible participants relocating to the hosting facility.

This opportunity is available to U.S. citizens or Lawful Permanent Residents (LPR).

Nature of Appointment

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOE, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications Applicants must:

- Be a U.S. Citizen or Lawful Permanent Resident
- Be enrolled as a full-time doctoral graduate student at a qualified program requiring a research thesis/dissertation at an accredited U.S. college or university during the academic year.
- Be conducting research in an area aligned with WPTO priority research areas for marine energy.
- Have a cumulative graduate GPA of 3.00 or higher on a 4.00 scale.
- Be available to conduct research at the hosting facility for at least six months.

Students may apply for and are eligible to participate in the program at multiple times during their graduate studies.

A complete application consists of:

- Zintellect Profile
- Proof of enrollment in a Ph.D. program requiring thesis during the 2019 fall semester/quarter. Proof may include one of the following:
 - Letter from authorized academic department official, such as Department Chair, or other document issued/authorized by the academic institution confirming your enrollment. Letter or document

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must include your name and official university markings such as the registrar's signature, university logo or stamp, letterhead or watermark, signature of the authorized official, etc.

- Unofficial transcripts or copies of the student academic records printed by the applicant or by academic advisors from internal institutional systems including courses in progress during the 2019 fall semester/quarter term.
- Proposed Research Plan
- Letter of Support from Hosting Facility
- A current resume/CV (2 page limit)
- Two relevant letters of recommendations. These letters should address your academic record and potential for success in an appointment, such as demonstrated intellectual merit, communication and teamwork skills. *You must provide one letter from your current academic advisor and the other from a person of your choice. The mentor at your proposed hosting facility may provide a letter of recommendation that is separate from their letter of support.*

For detailed information regarding Application Components, including requirements for the Proposed Research Plan, visit

<https://orise.orau.gov/mhk-research-program/>.

All documents must be in English or include an official English translation. Documents sent by email, postal mail, or fax will not be considered. All supporting materials must be uploaded as PDF files so the document can be searched by Zintellect's search engine. Scanned items are not optimal for search engines. PDF must not require special certificates or passwords to open. Max file size is 10MB.

If you have questions, please send an email to DOE-RPP@orise.orau.gov. Please list the reference code for this opportunity in the subject line of your email.

**Eligibility
Requirements**

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Currently pursuing a Doctoral Degree.
- **Overall GPA:** 3.00
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#))
 - **Computer, Information, and Data Sciences** ([16](#))
 - **Earth and Geosciences** ([21](#))
 - **Engineering** ([27](#))
 - **Environmental and Marine Sciences** ([14](#))
 - **Life Health and Medical Sciences** ([45](#))
 - **Mathematics and Statistics** ([10](#))
 - **Physics** ([16](#))
 - **Science & Engineering-related** ([1](#))
- **Age:** Must be 18 years of age