Opportunity Title: Fuel Cell Technologies Fellow
Opportunity Reference Code: DOE-EERE-STP-HFTO-2021-1800

Organization U.S. Department of Energy (DOE)

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

Description *ORISE is continuing normal program operations during the COVID-19 pandemic. This opportunity will be offered as long as the Hosting Faculty is able to complete the onboarding process and ensure a meaningful experience to participants. We encourage you to apply and submit your application as soon as possible. Updates to this opportunity will be provided on this page as needed.*

The Energy Efficiency and Renewable Energy (EERE) Science, Technology and Policy (STP) Program serves as a next step in the educational and professional development of scientists and engineers by providing opportunities to participate in policy-related projects at DOE's Office of Energy Efficiency and Renewable Energy in Washington, D.C. and in EERE's field offices. Participants will become part of a group of highly trained scientists and engineers with the education, background, and experience to be part of the workforce that supports the DOE's mission in the future.

The DOE's Office of Energy Efficiency and Renewable Energy's Hydrogen and Fuel Cell Technologies Office (HFTO) funds research, development and demonstration (RD&D) to enable the use of hydrogen and fuel cell technologies across multiple sectors enabling innovation, as strong domestic economy, and a clean, equitable energy future (https://www.energy.gov/eere/fuelcells/fuel-cell-technologies-office). Programs within HFTO include Hydrogen (Infrastructure, Production, Storage), Fuel Cells, Technology Acceleration, and Systems Analysis.

- The Fuel Cell Technologies Program focuses on developing fuel cells which are among the most promising technologies that are expected to transform the energy sector. They are highly efficient, fuel flexible, and offer diverse benefits. In particular, they are affordable, clean, and reliable fuel cell technologies that convert hydrogen to electrical power for a wide variety of applications, including transportation (automobiles, buses, trucks, rail, maritime) and stationary power generation (mid-scale electric power plants, backup power, small-scale distributed power plants for buildings).

The fellow will participate in technology management within the Fuel Cell Technologies Program. The ideal candidate should have a well-rounded background in the physical sciences as this technology area crosscuts a broad spectrum of disciplines that may include physics, chemistry, materials, and chemical engineering. Specifically, candidates with experience in fuel cell materials, components, stacks and systems are of interest. The Program currently focuses primarily on polymer electrolyte membrane fuel cells (PEMFCs) for transportation applications, as well as long-term technologies including anion exchange membrane fuel cells

(AEMFC) and reversible fuel cells (RFCs) for power generation and energy storage applications.

The Fellows will learn from activities such as:

- Technical review of projects funded by the Fuel Cell Technologies Program, which includes monitoring project progress and milestones; reviewing and analyzing project progress reports and other technical reports; and engaging with project researchers to address technical questions and issues that may arise
- Drafting key documents summarizing program strategy and accomplishments
- Technoeconomic analysis to inform program target-setting
- Organization of workshops and conferences to solicit feedback from expert stakeholders on program direction and strategy
- Identification of priority areas of research for future program activities
- Serving as a knowledgeable technical reviewer of research proposals
- Drafting technical papers or articles for publication
- Giving presentations at technical conferences and events to solicit stakeholder feedback on program activities

Key areas of research and development within the Fuel Cell Technologies Program include catalysts, membranes, membrane electrode assemblies, stacks, and balance of plant components.

HFTO is currently seeking two candidates for the Fuel Cell Technologies Program.

Specialized Qualifications:

- A degree in the physical sciences or engineering, such as chemistry, physics, materials science, chemical engineering, or a related area is required.
- Candidates with graduate, post-doctoral, or industrial experience in fuel cells will be given preference.
- Good written and oral communication skills are important.
- Writing sample will be requested.

Fellow Benefits

Selected Fellows will receive a stipend as support for their living and other expenses during this appointment. Stipend rates are determined by EERE officials and are based on the candidate's academic and professional background. Relocation expenses, not to exceed $5,000, incurred in relocating from the participant's current address to Washington, D.C. or Golden, CO (if more than 50 miles from the address shown on the application), may be reimbursed. Participants will receive a travel allowance of up to $10,000 per appointment year to cover travel-related expenses to scientific and professional development activities. This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR).

For more information about the EERE Science, Technology and Policy Program, please visit https://www.energy.gov/eere/education/energy-efficiency-and-renewable-energy-science-technology-and-policy-program

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Appointment Locations

Washington, D.C.

Golden, CO

Nature of the Appointment

Fellows will not enter into an employee/employer relationship with ORISE, ORAU, the 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.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, generic information, sexual orientation, or covered veteran's status.

Qualifications

Program eligibility requirements can be found at: https://www.energy.gov/eere/education/energy-efficiency-and-renewable-energy-science-technology-and-policy-program

Three levels of participation provide opportunities to a range of experience levels from recent graduates to experienced scientists and engineers to participate in the program.

Applicants should have an educational background in science and engineering and/or relevant work experience, preferably in hydrogen and fuel cell technologies. At least an M.S. degree or 3-5 years of equivalent experience are preferred. Applicants should have strong writing and communication skills; a writing sample will be requested. Applicants should be flexible with respect to the technical focus of their project, and willing to adapt and learn in new areas. Preferred applicants demonstrate superior academic performance and publication record, strong analytical, research and communication (oral and written) skills and demonstrated capacity for creative thinking, a strong technical background and increased knowledge in hydrogen and/or fuel cells (or another closely related field), and be interested in being part of a multi-disciplinary, fast-paced environment, focused on energy technology research and development. Experience and knowledge in technology commercialization is desirable, but not required.

How to Apply

A complete application consists of:

- An application
- Transcript(s) - For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Selected candidate may be required to provide proof of completion of the degree before the appointment can start.
- A current resume/CV
- Two Letters of Recommendation

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

The resume/CV must include the following:

- Basic applicant Information: Name, address, phone, email, and other contact information.
- Work & Research Experience: List all work and research experiences beginning with current or most recent. Include the name of the employer, location, position held, and time period involved.
- Leadership Experience: List experiences (e.g., work, civic, volunteer, research) that demonstrate your leadership skills. Detail your role, type of experience, organization, location, and duration.
- Educational History: List all institutions from which you received or expect to receive a degree, beginning with current or most recent institution. Include the name of the academic institution, the degree, the date of award, and academic discipline.
- Honors & Awards: List in chronological order (most recent first) any awards or public recognitions. Include the name of awarding institution, title of the award or honor, and date of award or honor.

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.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Engineering** (27 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)
- **Age:** Must be 18 years of age