

Opportunity Title: EPA Advanced Vehicle Technology Research Opportunity
Opportunity Reference Code: EPA-OTAQ-2021-01

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-OTAQ-2021-01

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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. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations

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

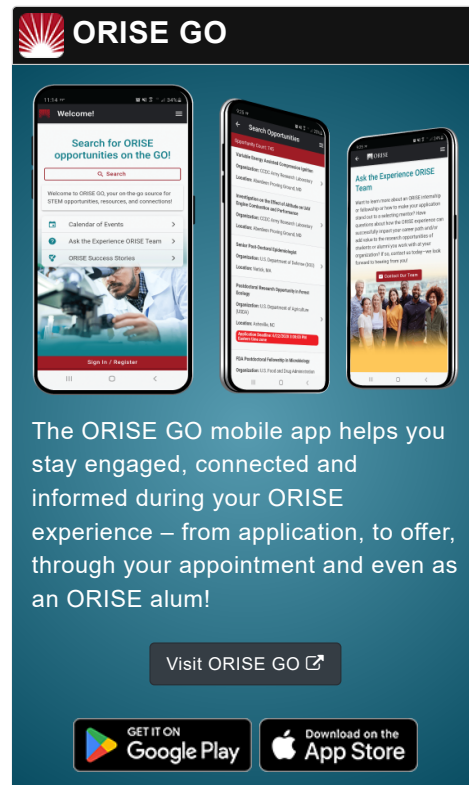
If you have questions, send an email to EPArpp@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 3/11/2021 3:00:00 PM Eastern Time Zone

Description **Applications will be reviewed on a rolling-basis.*

A research opportunity is available at the U.S. Environmental Protection Agency's (EPA) Office of Transportation and Air Quality (OTAQ). This appointment will be served with the Transportation and Climate Division (TCD) located in Washington, DC.

Exciting opportunity to research the current status and future potential of innovative low- and zero-emission vehicle technologies, including the costs of these technologies and their impacts on GHG emissions. The project will involve (1) identifying and analyzing data from recent academic, government, and private sector research and development efforts in the vehicle technology space and (2) transforming this research data into formats useful to vehicle techno-economic analysis and transportation sector modeling frameworks. The participant may contribute to literature review and other searches for data related to these vehicle technologies, including technology and infrastructure cost estimates, energy efficiency data, emissions rate data, and other vehicle performance data. The scope of this research will include light-duty cars and trucks, medium- and heavy-duty trucks and buses, rail locomotives, marine vessels, and aircraft. The participant will analyze and assess the quality of data once it is identified. The participant will also help to translate high quality data identified through these assessments into outputs that are useful to parameterizing a range of economic and technology modeling frameworks. Other similar research areas may be identified and pursued by the participant.



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The participant will learn about transportation vehicle and fuel technologies, transportation sector system dynamics, GHG emissions impact assessment, vehicle cost assessment, integrated assessment and multisector economic modeling, the passenger and freight transport industries, and government operations. The research participant will be mentored in data interpretation, presentation, organization, and communication of scientific findings, and will gain a better understanding of the complexities of energy system choices and an understanding of how to analyze the environmental impacts of changes in the energy system. The research participant will expand their knowledge interacting with a diverse group of researchers on interdisciplinary cross-cutting scientific issues related to the intersection of transportation technology, energy use and GHG emissions; have latitude in exercising independent initiative and judgment in the research commensurate with the level of training; and be given opportunities to communicate their findings to Agency personnel and non-Agency partners through presentations.

The mentor for this opportunity is Christopher Ramig (ramig.christopher@epa.gov).

Anticipated Appointment Start Date: Spring 2021

This program, administered by 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 EPA. The initial appointment is for one year and may be renewed upon recommendation of EPA contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Funding may be made available to reimburse the participant's travel expenses to present the results of his/her research at scientific conferences. No funding will be made available to cover travel costs for pre-appointment visits, relocation costs, tuition and fees, or participant's health insurance. Proof of health insurance is required for participation in this program. The appointment can be full-time or part-time (no less than 15 hours per week) at EPA in the Washington, DC, area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

The qualified candidate should be currently pursuing or have received a master's or doctoral degree in one of the relevant fields. Degree must have been received within five years of the appointment start date.

Preferred skills:












- Advanced skills in the use of Excel
- Experience with other data analysis and visualization tools (e.g., R, Tableau, etc.)
- Knowledge of any of the following areas: vehicle engineering, vehicle technology assessment, engineering cost assessment, economic modeling, greenhouse gas emissions impact assessment
- Some familiarity with battery electric and/or fuel cell electric vehicle technologies

**Eligibility
Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.

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- **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** (46 )
 - **Mathematics and Statistics** (10 )
 - **Physics** (16 )
 - **Science & Engineering-related** (1 )
 - **Social and Behavioral Sciences** (28 )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).