

Opportunity Title: Vehicle Emissions Modeling Research

Opportunity Reference Code: EPA-OTAQ-2018-15

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-OTAQ-2018-15

How to Apply A complete application consists of:

- An application
- 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 references

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

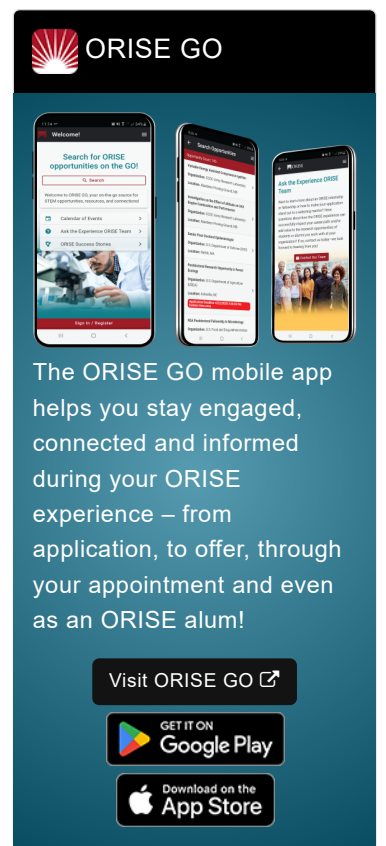
If you have questions, send an email to EPArpp@oraui.org. Please include the reference code for this opportunity in your email.

Description A research training opportunity is currently available at the U.S. Environmental Protection Agency's (EPA) Office of Transportation and Air Quality (OTAQ) in Ann Arbor, Michigan.

This project is with OTAQ's Assessment and Standards Division. The participant will be engaged in analyzing vehicle activity and emissions data and in conducting research to develop data and methods to improve vehicle emissions models. The participant will have the opportunity to:

- Identify potential improvements for EPA's Motor Vehicle Emission Simulator (MOVES) through model evaluation with real-world data sets, laboratory data, and data available in the literature
- Analyze data sets to summarize data, and/or develop statistical models and algorithms for use in emissions modeling. The data may come from sources such as:
 - Vehicle activity data collected from portable activity measurement systems (PAMS)
 - Tailpipe vehicle emissions data collected from portable emission measurement systems (PEMS)
 - Large data sets of in-use vehicle emissions data collected from Inspection & Maintenance (I/M) Programs, and remote sensing data (RSD)
- Present research to EPA colleagues and others through presentations, technical documentation and scientific papers.
- Observe how science is used in policy decisions within Office of Transportation and Air Quality
- Learn about the emissions modeling development process at the US EPA, including importance of emission models for informing policy-relevant decisions, and the use of relevant software development tools
- Learn about the collection of vehicle activity and emissions data.
- Develop abilities to visualize, quality assure, and analyze large datasets
- Develop scientific writing and presentation skills.

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 five to twelve months, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment may be part-time or full-time, depending on the participants schedule, in the Ann Arbor, Michigan area. Participants may reduce their level of participation during fall/spring semesters. Participants do not become employees of EPA, DOE or the program administrator, and



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there are no employment-related benefits.

Desired Appointment Start Date: January 7, 2019.

Qualifications Applicants must either be pursuing a bachelor's, master's, or doctoral degree, or have received a bachelor's, master's or doctoral degree in engineering, physical sciences, statistics, mathematics, natural resources, or computer science or a closely related field. Degree must have been received within five years of the appointment start date.

- Eligibility Requirements**
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
 - **Academic Level(s):** Graduate Students, Post-Bachelor's, Postdoctoral, Post-Master's, or Undergraduate Students.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#))
 - **Computer, Information, and Data Sciences** ([16](#))
 - **Engineering** ([27](#))
 - **Environmental and Marine Sciences** ([1](#))
 - **Life Health and Medical Sciences** ([1](#))
 - **Mathematics and Statistics** ([10](#))