Opportunity Title: EPA Aviation Emissions Modeling Fellowship
Opportunity Reference Code: EPA-OTAQ-2023-01

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-OTAQ-2023-01
How to Apply	***Connect with ORISE...on the GO!*** Download the new ORISE GO mobile app in the Apple or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

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 acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click here for detailed information about recommendations.

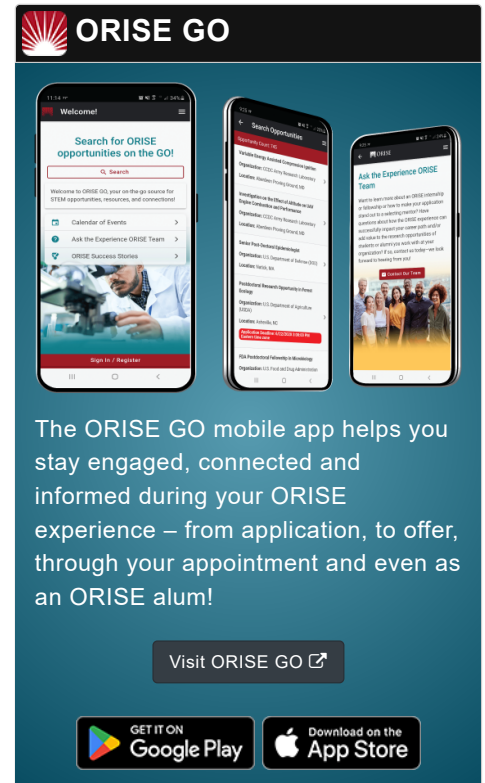All documents must be in English or include an official English translation.

Application Deadline	3/17/2023 3:00:00 PM Eastern Time Zone
Description	***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.*** Click **here** for information about the selection process.

EPA Office/Lab and Location: A research training opportunity is available at the Environmental Protection Agency's (EPA) Office of Transportation and Air Quality (OTAQ), National Vehicle and Fuel Emissions Laboratory (NVFEL) located in Ann Arbor, Michigan.

Research Project: The selected candidate(s) will be involved in research and development of databases and modeling methods to improve EPA's aircraft performance and emissions models. It includes researching data sources, measurements, and models to improve emission inventories; conducting rigorous analysis of aircraft and engine emissions data and flight activities to support modeling or regulations; developing methods to improve post-processing of emissions data for air quality models; and researching methods to improve validation of emission inventories compared to ambient air quality measurements and satellite monitoring data.

Learning Objectives: The participant will engage with engineers and scientists at the NVFEL, aircraft and aircraft engine manufacturers, and other government agencies and research laboratories (such as FAA, DOT/Volpe Center, EASA, NASA, Wright-Patterson AFRL, and SwRI) that collaborate with NVFEL personnel. The participant will receive input on their project from EPA experts on emissions modeling and emissions

measurement. There may be opportunities to present and publish results at conferences and in professional journals.

In addition, the participant will have the opportunity to learn how EPA constructs emissions inventories and conducts air quality modeling of future emission scenarios; learn about tools used by EPA in emissions modeling; develop skills to analyze large datasets; and develop skills in scientific writing and public presentations.

Mentor(s): The mentor to contact for questions about this opportunity is David Yen (yen.david@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: April 2023. All start dates are flexible and vary depending on numerous factors. Click **here** for detailed information about start dates.

Appointment Length: The appointment may initially be for one year and may be renewed four additional years upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment can be full-time or part-time, depending on the participant's schedule. If part-time, a minimum of 10 hours per week is required.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click **here** for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

ORISE Information: 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. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19

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requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please see the FAQ section of our website. After reading, if you have additional questions about the application process, please email ORISE.EPA.REG@orau.org and include the reference code for this opportunity.

Qualifications

The qualified candidate should have received a bachelor's, master's, or doctoral degree in one of the relevant fields (e.g. Computer Sciences, Engineering, Environmental Sciences, Natural Resources, Mathematics, Physical Science), or be currently pursuing a master's or doctoral degree. Degree must have been received within the past five years.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Communications and Graphics Design** (1 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Earth and Geosciences** (4 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (1 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Physics** (16 👁)
  - **Social and Behavioral Sciences** (1 👁)