

Opportunity Title: Heavy-Duty Bus Exhaust Emissions Research Analysis **Opportunity Reference Code:** EPA-OTAQ-2018-02

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-OTAQ-2018-02

How to Apply A complete application consists of:

- · An application
- Transcripts <u>Click here for detailed information about acceptable</u> 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@orau.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 with OTAQ's Testing and Advanced Technology Division is to advance EPA's mission of reducing environmental emissions and delivering on the promise of cleaner air. Participants will be engaged in developing and implementing methods for analyzing laboratory data, involving extensive collection and analysis of heavy-duty vehicle test data, leading to a greater understanding of the environmental benefits of heavy-duty hybrids in relation to conventional powertrain systems.

The research participants will be provided an opportunity to collect and analyze exhaust emissions data from heavy-duty diesel hybrid and nonhybrid buses. They will be involved in developing an analytical basis for comparing the CO2 and criteria emissions from hybrid and non-hybrid vehicles under various test cycles, with low-sulfur diesel and biodiesel test fuels. The participants will be provided an opportunity to report the results of the analysis in the form of a peer-reviewed journal or conference paper.

The participants will be involved in designing and executing experiments to yield useful vehicle emissions data and proper analytical methods for developing meaningful real-world conclusions and environmental applications.

Through this training opportunity the participants will gain a technical understanding of combustion science/chemistry and efficiency of diesel fuels in internal combustion engines at various operating conditions. They will obtain experience in reporting findings, possibly in the form of a professional publication.

This program, administered by ORAU through its contract with the U.S.

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Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE. For additional information about this program, please visit <u>https://orise.orau.gov/epa/</u>.

Appointments are part time for one year and may be renewed upon recommendation of EPA and contingent on the availability of funds. The participant will receive a monthly stipend. 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. The participant must show proof of health and medical insurance. **The participant does not become an EPA employee.**

The desired start date for this appointment is April16, 2018.

Qualifications Applicants must have received a master's or doctoral degree in mechanical engineering (combustion science) or a closely related field within the last five years or be currently enrolled at an an accredited U.S. college or university pursuing a master's or doctoral degree in one of the above mentioned fields. Students must provide proof of enrollment each semester.

Eligibility• Degree: Master's Degree or Doctoral Degree received within the last 60Requirementsmonth(s).

- Academic Level(s): Graduate Students, Postdoctoral, or Post-Master's.
- Discipline(s):
 Engineering (<u>1</u>)