**Opportunity Title:** Certification and Compliance Data Processing and Automation Research

**Opportunity Reference Code:** EPA-OTAQ-2018-12

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| **Organization** | U.S. Environmental Protection Agency (EPA) |
| **Reference Code** | EPA-OTAQ-2018-12 |
| **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@orau.org. Please include the reference code for this opportunity in your email.

**Description**

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 Compliance Division (CD) at the National Vehicle and Fuel Emissions Laboratory (NVFEL) in Ann Arbor, Michigan.

The participant will learn about methods of leveraging technology to improve the efficiency and accuracy of retrieving, processing and analyzing data. S/He will become familiar the development of programs and applications for automating the processing and reporting of data. The participant will also be exposed to, and gain a familiarity with, compliance data and programs of varying types, covering a number of sectors.

Under the guidance of a mentor, the participant will be involved with a number of projects all related to the development of applications and tools for automating the processing and analysis of compliance data to improve the efficiency of ensuring compliance from manufacturers. In addition, compliance data submitted by manufacturers need to be reviewed and aggregated in a number of ways in order to obtain meaningful results that will inform policy direct future compliance activities.

The participant will:

- Learn Visual Basic for Applications in Excel as well as its uses for automating data processing and analysis.
- Acquire familiarity with relational databases, as well as learning SQL and its use in retrieving data relevant to specific needs
- Be exposed to a number of other languages, platforms, and tools that are used in addressing real world data needs, including: Oracle Application Express and Qlik Sense.

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,

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 is full-time in the Ann Arbor, Michigan area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

The mentor for this project will be Ching-Shih Yang (yang.ching-shih@epa.gov).

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| **Qualifications** | Applicants must be pursuing or have received a bachelor's degree in computer science, engineering, environmental sciences, mathematics, or a closely related field within five years of the desired starting date. Students must provide proof of enrollment each semester. |

**Eligibility Requirements**

- **Degree:** Bachelor's Degree.
- **Discipline(s):**
    - **Computer, Information, and Data Sciences** (16 👁)
    - **Engineering** (27 👁)
    - **Mathematics and Statistics** (10 👁)