Post Master's Research Associate in Electrical Engineering

Energy and Transportation Science Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee

ORNL08–88–ETSD

Project Description:
The Transportation Technology Group in the Energy and Transportation Science Division (ETSD) at the Oak Ridge National Laboratory (ORNL) is seeking a researcher to assist in the conduct of heavy truck related projects, gain familiarity with in-house developed analysis software, prepare a draft user's manual related to in-house developed data analysis software, and to conduct special energy efficiency-based analyses based on field-tested data.
The Transportation Technology Group conducts research for a number of federal and private sponsors including agencies of the Department of Transportation, the Department of Energy, and the Department of Homeland Security. The research involves field testing/evaluation of safety systems; vehicle dynamics; modeling and simulation; data analyses, visualization, and remote sensing; and emergency management technology evaluation. Candidates will work within ORNL's Center for Transportation Analysis at the National Transportation Research Center. This Center has been conducting policy, planning and technology research for more than three decades.

Responsibilities:
The selected candidate will work with other researchers on projects, gain a working familiarity with one or more engine models [e.g., the Argonne National Laboratory developed Powertrain Systems Analysis Toolkit (PSAT)], utilize PSAT to conduct analyses of previously collected field data, gain a working knowledge of the Duty Cycle Generation Tool (DCGenT), and utilize DCGenT to generate duty cycles of interest to DOE, write a user's manual for DCGenT. In addition, the selected candidate will support the collection of safety and duty cycle data, assist in the establishment of wireless transfer of these data from commercial motor vehicles, drafting related requirements; configuration of data acquisition systems; developing needed interface software to collect, store, and manipulate vehicle bus data; and analyzing and evaluating system performance and data quality.

Qualifications:
Applicants are expected to have an M.S. in electrical engineering with strong demonstrated skills in the areas of Matlab, Labview, and transportation systems. Knowledge of sensor technologies, data acquisition systems, and data management are highly desirable. Familiarity with numerical calculation and statistical data analysis techniques are essential. Excellent communication skills, written and oral, are important expected attributes. No security clearance is required for this position. Travel may be required. Applicants cannot have received the most recent degree more than three years prior to the date of application and must complete all M.S. degree requirements before starting their appointment. Expected duration of these appointments is one year with the possibility of an extension. Interested candidates need to apply as soon as possible.

Additional Information:

- Visit the Center for Transportation Analysis (CTA) website click on the following URL: http://cta.ornl.gov/cta/
- For technical questions regarding the position, please contact Mr. Bill Knee kneehe@ornl.gov.

How to Apply:
Qualified applicants must apply online at https://www2.orau.gov/ORNL_POST/. All applicants will need to register before they can begin the online application. For complete instructions, on how to apply, please see the instructions at http://www.orau.gov/orise/edu/ornl/ornl-pdpm/application.htm. When applying for this position, please reference the position title and number.

This appointment is offered through the ORNL Postgraduate Research Participation Program and is administered by the Oak Ridge Institute for Science and Education (ORISE). The program is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.