Postdoctoral Research Associate in Energy Analysis

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

ORNL09–24–ETSD

Project Description:
The Whole-Building and Community Integration (WBCI) Group in the Energy and Transportation Science Division (ETSD) at the Oak Ridge National Laboratory is seeking an Energy Analysis Postdoctoral student. The WBCI Group provides support to U.S. residential and commercial buildings to improve energy efficiency. The work in the group focuses on equipment testing, field testing in research houses and commercial buildings, modeling, and program evaluation support to sponsors. Modeling and testing emphasizes advances in equipment efficiency and methods for integrating energy functions to reduce energy and peak demand. This work is funded by the U.S. Department of Energy, under the Building Technologies Program within the Office of Energy Efficiency and Renewable Energy.

Major Duties/Responsibilities:
The successful candidate will provide engineering analysis support and technical guidance to key technical activities within the ORNL whole-building and community integration program.

- Provides technical and analytical support for the development of advanced HVAC equipment, advanced appliance equipment, and advanced equipment integration for residential and commercial buildings energy efficiency.
- Supports modeling and analysis efforts to assess the overall performance of advanced equipment and control strategies for improving buildings energy efficiency, especially in the commercial area.
- Documents results in technical reports and presents results to sponsors and in technical conferences and forums.
- Collaborates with research staff on future research initiatives, manages research projects, and networks with related organizations.

Qualifications:
Requires a doctoral degree in mechanical engineering or architecture with a minimum of two to four years of experience and education in modeling for residential or commercial buildings. Experience with and understanding of energy simulation and modeling fundamentals for buildings is required, including identifying energy savings opportunities and performing technical and economic feasibility analyses. Strong written and verbal communication skills are mandatory. The candidate must be able to present and defend work results frequently to ORNL staff, sponsors and in other technical forums. The candidate needs to demonstrate initiative to quickly learn and provide creative approaches to performing technical projects. Knowledge of building equipment is required. Demonstrated

proficiency in building energy simulation, heat and mass transfer, and experience integrating numerical analysis with experimental studies. Some travel will be required. No security clearance is required. Expected duration of these appointments is one year with the possibility of an extension.

Applicants cannot have received the most recent degree more than five years prior to the date of application and must complete all degree requirements before starting their appointment. Expected duration of these appointments is one year with the possibility of an extension.

Note: Interested candidates should apply as soon as possible.

Technical Questions:
For technical questions regarding the position, please contact Ms. Melissa Lapsa lapsamv@ornl.gov. Please reference the position title and number, when corresponding about this position.

How to Apply:
Qualified applicants may 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.

This appointment is offered through the ORNL Postdoctoral or Postmaster's Research Associates Program and is administered by Oak Ridge Associated Universities (ORAU). These positions is open to all qualified candidates without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.