

**Opportunity Title:** ORNL Building Energy Analysis Post-Bachelor's Research Associate

**Opportunity Reference Code:** ORNL19-45-ETSD

**Organization** Oak Ridge National Laboratory (ORNL)

**Reference Code** ORNL19-45-ETSD

**Description** Oak Ridge National Laboratory (ORNL) is the largest US Department of Energy science and energy laboratory, conducting basic and applied research to deliver transformative solutions to compelling problems in energy, environment, and security.

The Building Envelope and Urban Systems Research group is seeking a Post-Bachelor's Research Associate with a background in mechanical engineering or a related field. The Research Associate will primarily assist in modeling whole building energy simulations using EnergyPlus and component level thermal transport modeling using COMSOL and MATLAB. The Associate will also assist in laboratory and field evaluations of building envelope systems that may include anisotropic thermal management and control system.

**Major Duties/Responsibilities:**


- Thermal transport simulation using COMSOL and MATLAB
- Build whole-building energy models using EnergyPlus and run simulations for energy performance evaluations
- Learn experimental methods for and perform thermal characterization of building envelope materials and systems
- Perform data collection and analyze the experimental data
- Ensure compliance with environment, safety, health, and quality program requirements
- Maintain strong commitment to the implementation and perpetuation of values and ethics

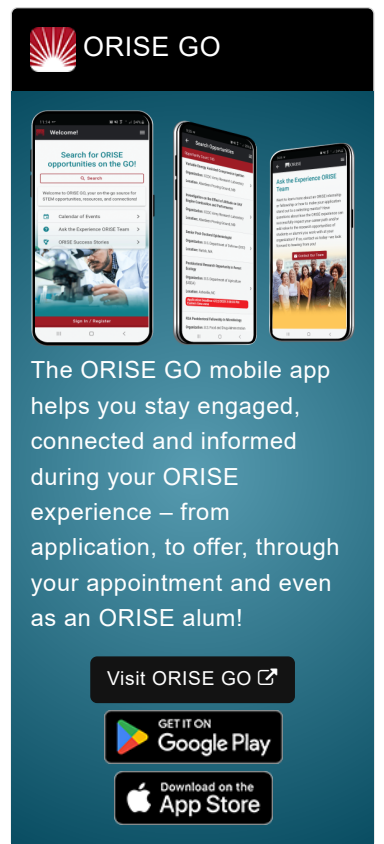
**Qualifications** The candidate should have a bachelor's degree in mechanical engineering or a related-field.

The candidate must possess demonstrated experience in component level thermal transport modeling and whole-building energy simulation using EnergyPlus. Working knowledge on laboratory and field evaluations as well as data collection and analyses would be beneficial. Excellent oral and written communication skills are desired.

The ORNL Post-Bachelor's Research Associates Program is administered by Oak Ridge Associated Universities through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education (ORISE).


**Eligibility Requirements**


- **Degree:** Bachelor's Degree received within the last 36 months or currently pursuing.
- **Discipline(s):**
  - **Engineering** ([1](#) )
- **Age:** Must be 18 years of age




**ORISE GO**

The ORISE GO mobile app helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!

Visit ORISE GO 

GET IT ON  
 **Google Play**

 **Download on the App Store**

---

**Opportunity Title:** ORNL Building Energy Analysis Post-Bachelor's Research

Associate

**Opportunity Reference Code:** ORNL19-45-ETSD

ORAU is an Equal Opportunity Employer (**EOE AA M/F/Vet/Disability**); visit the [ORAU website](#) for required employment notices.