

Job Title: Senior R&D Staff - Affordable, Low-Carbon, Energy-Efficient Building Retrofits

Requisition Id 12265

Oak Ridge National Laboratory (ORNL) is a U.S. Department of Energy (DOE) Office of Science national laboratory, with an extraordinary 80-year history of solving the nation's biggest problems. We have a dedicated and creative staff of over 6,200 people! ORNL's decadal vision for diversity, equity, inclusion, and accessibility (DEIA) is to cultivate an environment and practices that foster diversity in ideas and in the people across the organization, as well as to ensure ORNL is recognized as a workplace of choice. These elements are critical for enabling the execution of ORNL's broader mission to accelerate scientific discoveries and their translation into energy, environment, and security solutions for the nation. Come join us as we solve the nation's biggest challenges!

We are seeking a Senior R&D Staff who will be part of the Building Envelope Materials Research (BEMR) Group in the Building Technologies Research and Integration Center (BTRIC) at Oak Ridge National Laboratory (ORNL). BEMR research supports the U.S. DOE Building Technologies Office and other customers by developing state-of-the-art and cost-effective building envelope technologies that make new and existing buildings energy efficient, low carbon, resilient, healthier, comfortable, and grid interactive.

Major Duties/Responsibilities:

You will:

- Lead ORNL's efforts to reduce the upfront cost of upgrading a home by at least 50% and energy bills by 20% within a decade.
- Integrate crosscut capabilities at ORNL to develop and deploy affordable, low-carbon retrofit technologies that make buildings more energy efficient, healthier, and resilient; and also create economic opportunities for the nation. ORNL's capabilities include development, integration, and deployment of new building technologies; advanced manufacturing and automation that increase throughput and affordability; co-optimization of affordability and operational and embodied carbon in buildings; community- and nationwide-scale data analysis; and sustainable electrification.
- Develop successful proposals on affordable, low-carbon, energy-efficient building retrofits.
- Manage and be part of teams that perform simulation, laboratory, and field experiments to develop state-of-the-art building envelope materials and assemblies that co-optimize reduction of operational energy and embodied carbon, manufacturability, quality, and affordability.
- Collaborate in multidisciplinary teams that are composed of ORNL researchers with various backgrounds (e.g., material science, automation, advanced software, and sensors and controls among others).
- Interact and collaborate with researchers from universities, national laboratories, and private industry.
- Present research results to ORNL staff, DOE, industry, and academia in the form of invited talks, conference papers, and peer-reviewed journal papers with high impact factors.
- Ensure compliance with environmental, safety, health, and program requirements.
- Maintain a strong commitment to the implementation and continuation of ORNL's values and ethics.
- Deliver ORNL's mission by aligning behaviors, priorities, and interactions with our core values of Impact, Integrity, Teamwork, Safety, and Service. Promote diversity, equity, inclusion, and accessibility by fostering a respectful workplace – in how we treat one another, work together, and measure success.

Basic Qualifications:

- At least 12 years of relevant work experience.
- MS or PhD in mechanical engineering, civil engineering, or related discipline.
- Exceptional understanding of the technological needs required to make low-carbon, energy-efficient, moisture durable, and healthy building retrofits affordable.
- Excellent understanding of market barriers for building retrofits.
- Extensive network with industries and non-profit institutions that support building retrofits.
- Solid academic and research record in heat transfer, thermodynamics, and/or mass transfer in buildings with emphasis on modeling and experimental research.
- Extensive experience designing, setting, conducting, and analyzing results from simulations and laboratory experiments.
- Strong, proven track record in:

- Writing proposals and securing funds.
- Leading teams of researchers with different backgrounds.
- Working individually and as part of diverse teams.
- Supporting and leading team building.
- Working in a fast-paced research environment in which you must set priorities to accomplish multiple tasks for parallel deadlines.
- Publishing in peer-reviewed journals with high reputation.
- Excellent oral and written communication skills.
- Active participation in professional societies.

Preferred Qualifications:

- Proficiency with EnergyPlus or COMSOL is a plus.

No security clearance is required for this position.

Moving can be overwhelming and expensive. UT-Battelle offers a generous relocation package to ease the transition process. Domestic and international relocation assistance is available for certain positions. If invited to interview, be sure to ask your Recruiter (Talent Acquisition Partner) for details.

For more information about our benefits, working here, and living here, visit the “About” tab at jobs.ornl.gov.

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This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

We accept Word (.doc, .docx), Adobe (unsecured .pdf), Rich Text Format (.rtf), and HTML (.htm, .html) up to 5MB in size. Resumes from third party vendors will not be accepted; these resumes will be deleted and the candidates submitted will not be considered for employment.

If you have trouble applying for a position, please email ORNLRecruiting@ornl.gov.

ORNL is an equal opportunity employer. All qualified applicants, including individuals with disabilities and protected veterans, are encouraged to apply. UT-Battelle is an E-Verify employer.