

Tenure-Track **Assistant Professor**
Renewable Energy Systems Engineering
Department of Bioproducts and Biosystems Engineering
Southern Research & Outreach Center
College of Food, Agricultural and Natural Resource Sciences
University of Minnesota

The Department of Bioproducts and Biosystems Engineering (BBE) and the Southern Research & Outreach Center (SROC) seek candidates for a tenure-track academic position at the assistant professor level with 50% teaching and 50% research responsibilities to develop a collaborative, internationally recognized research program in the areas of Renewable Energy Systems Engineering focusing on sustainable manufacturing of renewable biofuels. This faculty position is tenure track, 9-month appointment as an assistant professor level to be located in both Southern Research & Outreach Center in Waseca, MN, and the St. Paul campus.

There is a rising interest worldwide, especially in the US, to build a clean, renewable, and equitable energy economy addressing the global energy and climate crisis. Minnesota and the Upper Midwest have been leaders in producing biofuels and bioproducts and can lead internationally in moving towards a low-carbon, sustainable bioeconomy. The renewable energy systems engineering faculty position is aimed at advancing the frontiers of science and engineering in developing low-carbon, clean energy technologies to convert Minnesota's diverse bioresources into low-carbon biofuels such as renewable natural gas (RNG), sustainable aviation fuels (SAF), green diesel, and biodiesel. Applicants must have an excellent record of accomplishment in an academic or industrial setting and possess the potential to be an internationally recognized leader in teaching and research.

Research: The candidate is expected to develop an internationally recognized research program with a focus on the design, development, and deployment of advanced clean energy technologies using Minnesota's diverse bioresources. The candidate will develop sustainable integrated biorefinery technologies to transition Minnesota towards a clean energy bioeconomy, spur innovation and growth, and help create high-quality jobs, especially in greater Minnesota. Collaborative research with various colleges, departments, and centers across the University, including the College of Food, Agricultural and Natural Resource Sciences (CFANS), West Central Research and Outreach Center (WCROC) in Morris, and the College of Science and Engineering (CSE), etc. is highly encouraged.

Teaching: The teaching component of this position will include teaching and developing basic and applied science and engineering courses in BBE, such as Biomass Chemistry, Thermodynamics, Renewable Energy, Mass and Energy Balances, Sustainability of Food Systems, Recycling: Extending Raw Materials, and their applications in bio-renewable energy systems. Teaching may include lecture/lab, e-based teaching, or other modes of instruction and interaction with students. A demonstrated commitment to teaching, advising, and curriculum in both undergraduate BBE and Sustainable Systems Management (SSM) majors, as well as graduate teaching and advising in the Bioproducts and Biosystems Science, Engineering and Management (BBSEM) graduate program is also essential. This position is also expected to strive for excellence in academic advising for undergraduate and graduate students as a vital component of student development.

Qualifications

Required:

- Ph.D. in applied chemistry, chemical engineering, bio-renewable resources engineering, or related disciplines with demonstrated experience/background in renewable energy systems
- Evidence of potential to develop a successful independent research program
- Demonstrated commitment to teaching
- Demonstrated effective written communication skills

Preferred:

- Research or industrial experience in biofuels from renewable bioresources and biotechnology applications
- Demonstrated and relevant publication record or industrial experience
- Experience in effective teaching, including active learning and course development
- Ability and flexibility in teaching basic and applied science and engineering courses in BBE, such as Biomass Chemistry, Thermodynamics, Renewable Energy, Mass and Energy Balances, Sustainability of Food Systems, Recycling: Extending Raw Materials, and their applications in bio-renewable energy systems
- Evidence of collaborative research

- Strong communication skills
- Demonstrated commitment to diversity and inclusivity in an academic or professional setting and commitment to supporting the University's goal of creating a positive and inclusive campus climate by advancing diversity, equity, and inclusivity

About the Department of Bioproducts and Biosystems Engineering (BBE)

The Department of Bioproducts and Biosystems Engineering (bbe.umn.edu) is an internationally renowned academic unit with the core mission of sustainable use of renewable agricultural and natural resources, and protection and enhancement of the environment.

About Southern Research & Outreach Center (SROC)

The Southern Research and Outreach Center (sroc.cfans.umn.edu) conducts innovative basic and applied research in the areas of agricultural production, human health, renewable energy, and the environment. They are committed to contributing to sustained social and economic development, the wise use of natural resources, and an enhanced quality of life in communities across Minnesota and around the world.

How to Apply

Applications must be submitted online at humanresources.umn.edu/content/find-job. Search for **Job ID 365161**. To be considered for this position, please click the Apply button and follow the instructions. You will have the opportunity to complete an online application for the position and attach a cover letter and resume. Additional documents may be attached after the application by accessing your "My Job Applications" page and uploading documents in the "My Cover Letters and Attachments" section.

Applications should include a cover letter, detailed curriculum vitae, statements on teaching and research interests, and a list of three references with contact information (including email addresses). Candidates should include all required application materials **combined into one single PDF document**.

Review of applications will begin December 16, 2024 and continue until the position is filled.

During the interview process, applicants will be asked to describe their commitment, experience, and approach to teaching and working with students, colleagues, and constituents from diverse populations.

This position will remain open until filled. To request an accommodation during the application process, please e-mail employ@umn.edu or call (612) 624-UOHR (8647).

Diversity

The University recognizes and values the importance of diversity and inclusion in enriching the employment experience of its employees and in supporting the academic mission. The University is committed to attracting and retaining employees with varying identities and backgrounds.

The University of Minnesota provides equal access to and opportunity in its programs, facilities, and employment without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. To learn more about diversity at the U: <http://diversity.umn.edu>.

Background Check Information

Any offer of employment is contingent upon the successful completion of a background check. Our presumption is that prospective employees are eligible to work here. Criminal convictions do not automatically disqualify finalists from employment.

About the University of Minnesota

The University of Minnesota, Twin Cities (UMTC), is among the largest public research universities in the country, offering undergraduate, graduate, and professional students a multitude of opportunities for study and research. Located at the heart of one of the nation's most vibrant, diverse metropolitan communities, students on the campuses in Minneapolis and St. Paul benefit from extensive partnerships with world-renowned health centers, international corporations, government agencies, and arts, nonprofit, and public service organizations.