

ASSISTANT/ASSOCIATE/FULL PROFESSOR IN ENERGY TRANSITION

Purdue Engineering invites applications for a tenured/tenure track position at all ranks (Assistant, Associate or Full Professor). The College of Engineering (COE) at Purdue University recently launched the Purdue Engineering Initiative on Energy Transition ([LEAPS](#)) to link, leverage, and align Purdue's extensive learning, discovery, and engagement assets, accelerating the global transition to sustainable, affordable, and reliable energy. Purdue Engineering seeks to attract exceptional candidates with interests and expertise related to areas critical to the energy transition, including but not limited to:

1. **Nuclear power in the global energy transition**, particularly in nuclear fission and fusion technologies, with an emphasis on small and micro nuclear reactors for distributed energy generation, entrepreneurship in fusion energy, plasma physics engineering, and tritium handling and expertise.
2. **Advanced energy storage technologies**, focusing on resilient and sustainable architectures, next-generation battery chemistries, and energy storage solutions for electrified mobility, aviation, and grid-level storage, with an emphasis on novel metrology, characterization, analytics, and predictive modeling for scalable manufacturing.
3. **Materials innovation for energy systems**, for energy systems, emphasizing the design and synthesis of complex inorganic architectures, functional surfaces for photochemical and electrochemical applications, and catalytic processes with emphasis on upgrading and conversion of emerging energy carriers.
4. **Low-carbon materials processing** for large-scale industries, including the chemical, cement, and steel sectors, focusing on decarbonizing value chains through novel processing chemistries, circular material flows, and energy-efficient and smart manufacturing.
5. **Renewable feedstocks and biomanufacturing**, including the development of resilient supply chains and biotechnologies for utilizing CO₂ and renewable feedstocks to produce chemicals and fuels through biological or catalytic pathways.
6. **Electrification and modernization of the electrical grid**, including challenges related to the integration of renewables, distributed energy resources, energy storage solutions, explosive load growth from data centers, electrification of the transportation and industrial sectors, grid data analytics and AI/ML solutions, and enhancing resilience to extreme weather events.
7. **Scalable technologies for energy efficiency**, addressing innovations in building systems, industrial processes, and energy management tools that can significantly reduce energy consumption and optimize energy use in power, products, and processes consonant with the energy transition.

Successful candidates must hold a Ph.D. degree in a related discipline to their research area by the employment start date and demonstrate potential to build an independent research program, as well as potential to educate and mentor students. The successful candidate will conduct original research, advise graduate students, teach undergraduate and graduate level courses, and perform service at the School, College, and University levels. Applicants interested in all engineering schools are welcome to apply.

Purdue Engineering is one of the largest and top-ranked engineering colleges in the nation and renowned for top-notch faculty, students, unique research facilities, and a culture of collegiality and persistent pursuit of pre-eminence. According to the latest US News and World Report's disciplinary graduate program rankings, Purdue Engineering has 3 disciplines ranked in the top 5 in the country and 10 in the top 10. Purdue Engineering as a whole is ranked 3rd for online graduate engineering programs, 6th for graduate programs. For three years running, Purdue is ranked by the USPTO as No.2 University campus in the US in terms of annual number of US patents issued, and nearly 70% of those patents come from Purdue Engineering. The College [Vision for 2030](#) is guiding strategic growth in new directions, by investing in people, [exciting initiatives](#), and [facilities](#).

To apply, please submit application to this site https://careers.purdue.edu/job/AssistantAssociateFull-Professor-in-Energy-Transition/33838-en_US/ including (1) cover letter, (2) a complete curriculum vitae, (3) teaching plan, (4) research plan, and (5) names and contact information for at least 5 references. The search committee may contact references to request letters. For information/questions regarding applications contact the Office of Academic Affairs, College of Engineering, at coeacademicaffairs@purdue.edu. Review of applications will begin on November 11, 2024 and will continue until the position is filled. A background check is required for employment in this position.

Purdue and the College of Engineering have a [Concierge Program](#) that provides dual career assistance and relocation services.

Purdue University is an EOE/AA employer. All individuals, including minorities, women, individuals with disabilities, and veterans are encouraged to apply.