Deadline: 09 August 2026

APPLY 14-2026

Researcher / Research Scholar - BeWhere model

AGRICULTURE, FORESTRY, AND ECOSYSTEM SERVICES (AFE) RESEARCH GROUP

The AFE Research Group, part of the IIASA Biodiversity and Natural Resources (BNR) Program, invites applications for a highly motivated researcher / research scholar to contribute to the BeWhere modelling agenda - a core component of the group's integrated modeling framework.

BACKGROUND

The AFE Research Group focuses on generating new scientific knowledge and developing state-of-the-art modeling tools to support the understanding, assessment, and management of global and regional agriculture, forestry, and natural land systems under increasing uncertainty. The group's research aims to inform policy and decision-making related to sustainable land use, resource management, and climate mitigation.

Robust assessment and management of natural resources require a deep understanding of complex, interacting biophysical and techno-economic processes within terrestrial ecosystems. To this end, AFE seeks to advance integrated analytical approaches that jointly address agriculture, forestry, and natural land ecosystems at global, regional, and national scales. The group's ambition is to maintain a leading position in interdisciplinary research that bridges natural resource systems, energy systems, and sustainability transitions.

THE ROLE

BeWhere is a mature, spatially explicit supply-chain optimization model for planning low- and negative-carbon technology systems across national, regional, and global scales. It supports the siting, sizing, interconnection, conversion, transport, storage, and use of resources and products including electricity, water, biomass, bioenergy, advanced biofuels, biomaterials, hydrogen, e-fuels, carbon dioxide, and long-lived wood-based products. The holistic framework of BeWhere supports the assessment of carbon dioxide removal and carbon-management pathways, including decarbonization and de-fossilization of 'hard-to-abate' sectors, BECCS, DACS, biogenic CO utilization, CO_2 and H_2 transportation, and CCUS value chains.

The AFE Research Group seeks a scientifically driven researcher (soon-to-be PhD or experienced) to support the continued development and application of BeWhere in cutting-edge EU Horizon projects on circular bioeconomy planning under diverse ecosystem-service constraints; integrating land–sea biomass; renewable-energy expansion; and supply-chain optimization for energy and material including CO_2 and H_2 based advance value chains. The successful candidate will help integrate heterogeneous spatial datasets, prepare BeWhere-ready model inputs, support scenario runs, analyze optimization outputs, and develop interactive visualization tools. The role will also support the further expansion of BeWhere's capabilities in the co-optimization of multi-sectoral energy systems, multi-objective optimization, uncertainty-aware and stochastic modelling approaches, and advanced statistical analysis, contributing to its development as a supply-chain, and material–energy system modelling platform

MAIN TASKS AND RESPONSIBILITIES

- Enhance and maintain the BeWhere model database by integrating spatial data sets relevant to the circular bioeconomy including techno‐economic, socio‐economic, ecosystem services, and policy‐related information.
- Expand BeWhere's capabilities to include multi-objective optimization, uncertainty-aware and stochastic modelling approaches. Analyze, interpret and visualize BeWhere modelling results by producing spatial maps, indicators, and visualization tools to communicate result for scientific publications, project deliverables, and stakeholder engagement.
- In line with the collaborative and interdisciplinary working culture at IIASA, the incumbent may occasionally contribute to additional tasks assigned by supervisors. These may fall outside the immediate scope of this position but will draw on the post holder's expertise and support the group's work where emerging needs or temporary capacity constraints arise

SKILLS, QUALIFICATIONS & EXPERIENCE

Education and Background

- Ideally a completed PhD, OR candidates in the final year of their PhD, combined with relevant experience and demonstrated expertise in engineering, energy or power systems, or bioenergy, biotechnologies, industrial energy systems or a closely related field.

Essential skills and competencies:

- Proven experience with mathematical energy system optimization models; techno-economic modelling or life cycle analysis.
- Demonstrated experience in GAMS, Python, Julia for optimization and Python or R for scientific data processing.
- Experience with GIS and spatial data analysis.
- Full fluency in English, both written and spoken.
- Ability to work well as part of a team and independently.

Desirable skills:

- Experience in Energy System Modelling, or Supply chain Optimization
- Understanding of AI/ML, SysML, Model‐Based Systems Engineering (MBSE) approaches is a plus
- Understanding of biophysical aspects of ecosystems, and land-use change including forestry, agriculture, and aquaculture systems.
- Familiarity with scenario analysis, AI/ML based foresight methods, and infrastructure or supply‐chain planning.

APPOINTMENT TERMS

The successful candidate should be available to take up the position **as soon as possible**.

The place of work is IIASA in Laxenburg, near Vienna, Austria (home office options available).

The successful candidate will be appointed as a researcher (**R1**) OR Research Scholar (**R2**) depending on qualifications and experience and in accordance with the IIASA profiles for research careers.

WE OFFER

- **1.5-year full-time** fixed term contract (100%, 40 hrs/week) with the possibility of extension thereafter. Flexible arrangements on duration can be discussed.
- An attractive annual salary, exempt from income tax in Austria (subject to deductions for health insurance and/or social security), of *at least* **EUR 42,374** for **R1 Researcher**. OR
  EUR 55,215 for **R2 Research Scholars**
- The possibility to contribute to environmental sciences for sustainability and global wellbeing.
- An international atmosphere and pleasant working environment in a historic market town surrounded by green areas.

IIASA salaries are:

- Not directly comparable with other employers in Austria, due to the unique legal status and privileges granted to IIASA.
- Subject to the principle of income aggregation (Progressionsvorbehalt in German).

- Knowledge of decision‐making under uncertainty, including stochastic modeling, risk assessment, and security or safety research.
- Experience with spatial analysis and Geographic Information Systems (GIS).
- Experience in project management, including the preparation of technical and scientific reports.
- Working knowledge to develop interactive web‐based interfaces for model communication.

ADDITIONAL BENEFITS

- Educational subsidies for children of school age enrolled in private schools in Austria.
- A generous annual leave entitlement.
- Relocation allowances and paid home leave for employees in scientific and professional categories who are hired from international locations.
- Assistance for newcomers to Austria with visa, work and residency permit applications.
- Support finding accommodation in Austria.

Further details here.

About IIASA

IIASA is committed to a working environment that promotes equality, diversity, tolerance and inclusion within its workforce. This is reflected in our IIASA core values. We encourage qualified candidates from all religious, ethnic, and social backgrounds to apply. In the case that candidates are equally qualified, preference will be given to applicants from countries where IIASA has a Member Organization.

Further Information

For further information about this opportunity please contact:

Dr. Florian Kraxner – Research Group Leader and Principal Research Scholar, AFE.
Dr. Shubam Tiwari – Research Scholar, conceptual architect and lead developer of BeWhere model

Enrico Confienza – Program and Project Officer, AFE.

Applications

In order to apply for this opportunity, you will need to provide the following documents in English:

- A cover letter outlining your motivation for and fit to the position.
- A detailed Curriculum Vitae and a recent example of your research work
- The names, addresses (including e-mail), and telephone numbers of two reference givers.

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