IIASA

APPLY 04-2025

Researcher in Integrated Assessment Modeling

The Integrated Assessment and Climate Change (IACC) Research Group within the IIASA Energy, Climate, and Environment (ECE) Program seeks a talented researcher to work with a team of international scientists to further develop the MESSAGEix framework and in particular the open-source MESSAGEix-GLOBIOM model.

BACKGROUND

The ECE Program at IIASA hosts one of the world's leading global Integrated Assessment Modeling (IAM) teams, and seeks to deepen the understanding of rapid, just, and feasible systems transformations toward environmental, social, and economic sustainability. Interdisciplinary teams within ECE use these and complementary methods to study trade-offs and synergies between multiple policy priorities and objectives, typically across multiple sectors and scales (global, regional, national and subnational). ECE's scientific outputs inform international and national policy efforts related to climate change (e.g., implementation of the Paris Climate Agreement) and sustainable development (e.g., pursuit of the Sustainable Development Goals).

FOCAL AREAS

Ongoing research in ECE spans a range of areas. In particular, candidates will be considered who can strongly contribute to one or more of:

- Investigating the role and trade-offs of implementing various Carbon Dioxide Removal technologies at global, regional, and local scales with an emphasis on sustainability and feasibility considerations development of innovative tools to assess the trade-offs of different mitigation strategies in terms of macro and micro-economic impacts.

- Integrating climate change feedback and impacts into the IAM framework to study the impact of climate change on CDR mitigation options.

- Increasing spatial and temporal resolution of the IAM framework to better capture challenges and associated solutions at the national and subnational scales.

- Integrating and improving land-use representations that consider sustainability, climate feedback, and other synergies and tradeoffs across novel and conventional CDR approaches.

MAIN TASKS AND RESPONSIBILITIES

- Contribute to the development of the global MESSAGE*ix*-GLOBIOM model, the open source MESSAGE*ix*

modeling framework, and related software tools and data sets.

- Design, develop, and maintain land-use modeling tools and other model extensions to analyze and assess the effectiveness and impacts of various land-based carbon dioxide removal strategies.

- Investigate, prepare, and analyze integrated assessment model scenario campaigns in conjunction with senior researchers within the IACC and Sustainable Service Systems (S3) research groups.

- Develop and document version-controlled collaborative modeling code that allows to re-process data and analyze datasets and model results.

- Maintain and disseminate relevant datasets according to FAIR data principles.

- Publish relevant results in peer-reviewed journals and actively engage in dissemination efforts such as scientific conferences and workshops, stakeholder, and policy events.

- Contribute to ongoing and future projects and related deliverables, reports, stakeholder communication and capacity building activities.

SKILLS, QUALIFICATIONS AND EXPERIENCE

- A degree in a field related to integrated assessment modeling including economics, engineering, environmental science or energy systems with at least one of the following qualifications:
  - PhD degree
  - Master's degree with several years of relevant research experience.

- Demonstrated specific domain knowledge in one or more of the above focal areas is a strong asset.

- Demonstrated experience in tools and systems used by the ECE program (cf. MESSAGEix documentation) including
  - experience in a modern programming language, preferably Python essential,
  - experience with an optimization framework (e.g., GAMS, pyomo, JuMP, etc.) strongly preferred,
  - experience with integrated assessment modeling an asset.

- Demonstrated ability to contribute to open-source projects, data provision and code-development, using git and GitHub.

- Demonstrated ability to develop, collaborate on, and publish scientific research through peer-reviewed publications.

- A degree of flexibility and willingness to travel.

- Fluency in English and excellent presentation skills.

- IIASA offers an interdisciplinary and international workplace, and the possibility to interact with

APPOINTMENT TERMS

The successful candidate should be available to take up the position as soon as possible in 2025. We offer an initial fixed-term, full-time employment contract for one year, with the possibility for extension thereafter.

Eligible applicants wishing to work part-time hours may be considered.

The place of work is IIASA in Laxenburg, near Vienna Austria.

The successful candidate will be appointed in accordance with the IIASA profiles for research careers (R1 or R2).

WE OFFER

- The possibility to contribute to environmental sciences for sustainability and global wellbeing.

- Career development perspectives.

- An international atmosphere and pleasant working environment in a historic market town surrounded by green areas.

- An attractive salary which is **exempt from income tax in Austria** and negotiable, based on the qualifications, skills and experience of the selected individual but *at least*
  EUR 41,020.00 for R1 Researchers
  EUR 53,451.00 for R2 Research Scholars

Salaries quoted are:

- Gross per annum (subject to deductions for health insurance and/or social security).

- Not directly comparable with other employers in Austria, due to the unique legal status and privileges granted to IIASA.

researchers of different nationalities, with strong ties to a world-wide network of research institutions engaged in environmental systems research. The successful candidate must be able to work in, and have respect for, an intercultural environment, and IIASA core values.

- Subject to the principle of income aggregation (Progressionsvorbehalt in German).

OTHER 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 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 and the IIASA Gender Equality Plan (GEP). 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:

Elina Brutschin, Senior Research Scholar
or
Keywan Riahi, Program Director

For general information about working at IIASA, please contact: recruitment@iiasa.ac.at

Applications

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.

- An example of an existing software (coding) project or application.

- The names, addresses (including e-mail), and telephone numbers of two reference givers.

Review of applications will begin immediately and continue until the position has been filled.

Deadline for receipt of applications: 15 April 2025

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