IIASA

APPLY 26/2020

Researcher - Environmental Modeling

IIASA POLLUTION MANAGEMENT RESEARCH GROUP

VACANCY 26/2020

The Pollution Management (PM) Research Group, will be one of four research groups in the new IIASA Energy, Climate, and Environment (ECE) Program, and will continue the work currently being carried out in the IIASA Air Quality and Greenhouse gases (AIR) Program. We are looking for a Research Assistant/Postdoc (early career scientist) to model nutrient flows in the environment, in a specific urban situation. Candidates wishing to pursue a PhD (with an IIASA supervisor) as well as those already at postdoc level are encouraged to apply.

BACKGROUND

The IIASA AIR Program has pioneered the understanding of cost- effective policy intervention options that simultaneously reduce air quality and climate impacts of anthropogenic emissions while delivering other development benefits. The Urban Nitrogen Cycles: New Economy Thinking to Master the Challenges of Climate Change (UNCNET) project specifically addresses the nitrogen cycle and its mass-flow budgets in an urban environment. Project test areas are Vienna, Zielona Góra in Poland, and Shijiazhuang and Beijing in China, with local project partners in all cities.

MAIN DUTIES:

The successful candidate will develop and refine model approaches for estimating the flows of nitrogen in and between environmental pools in urban settings. This will involve to extend the current approaches of urban stock-flow modeling towards waste/wastewater processes, and the specific aspects of urban agriculture. This will also require the collection of data for the Vienna test area from national statistics, local authorities, and other stakeholders - in part via personal interviews. The analysis will interface with other models, specifically the GAINS model developed at IIASA, but also the NUFER model operated by one of our partner institutions, the Chinese Academy of Sciences. The candidate selected will have the opportunity to present scientific papers at conferences and workshops and to publish in the scientific literature.

REQUIRED EXPERIENCE:

The successful candidate will demonstrate experience in project-oriented research work, as they will be expected to successfully in manage timelines, deliverables and milestones within UNCNET.

Candidates should have a background in quantitative sciences or engineering, specifically in fields like (but not

limited to) environmental sciences, climate sciences, agricultural sciences, agricultural or environmental engineering. Unless having already acquired a doctoral degree (for postdoctoral researcher), they should be eligible to enroll in a doctoral program. This means that they need to have completed a four-semester Master's program. Among other options, collaboration with the Vienna University of Technology would enable direct PhD supervision by IIASA scientists.

REQUIRED SKILLS

- Applicants must be prepared to process and manage large datasets, become proficient with a complex systems model, and analyze results. Proficiency with statistical tools and programming (e.g., Python or R) is highly welcome. Also operating GIS systems will be helpful. Applicants also must be prepared to develop new modeling approaches and think critically and independently about their research.

- Ability to write in a clear and concise manner (in English) and to present factual, data-driven information. Proof of writing skills (e.g., copy of master thesis, possibly additional publications) is needed. In order to interact with stakeholders of the Vienna test area, a good knowledge of the German language will be an advantage.

- Excellent interpersonal, networking and communication skills. The selected candidate will interact between the IIASA project team as well as other IIASA research groups, and the project partners in Poland and China, which will require the willingness to travel (under non-pandemic conditions), but also a high degree of self-organization. Ability to prioritize workload, in a pressured environment with competing demands.

- Ability to work in a multicultural environment. IIASA offers an interdisciplinary and international workplace and the possibility to interact with researchers of different nationalities, with strong ties to a world-wide network of research institutions engaged in environmental systems research.

APPOINTMENT TERMS

The selected candidate should be available to take up the position in February 2021. We will offer an initial full-time (40 hours per week), fixed term employment contract for one year, with the possibility for extension thereafter. Applicants wishing to work part-time hours will be considered.

Duties will be carried out at the IIASA premises in Laxenburg, near Vienna in Austria.

This position is classified as a ''Scientific level'' post.

WE OFFER:

The minimum annual gross salary for this position is € 32,139.00 which is exempt from income tax in Austria (subject to the principle of income aggregation – "Progressionsvorbehalt")

The advertised salary is:

- Negotiable, based on the qualifications, skills and experience of the selected individual

- 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

Further information about benefits offered and working at IIASA 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 Core Values. We encourage qualified candidates, irrespective of gender, 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 National Member Organization (NMO).

Further Information

For further information about this opportunity please contact:

Dr. Wilfried Winiwarter, Senior Research Scholar.

For general information about working at IIASA, please contact:

Alia Harrison, Recruitment Coordinator.

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.

- Your Curriculum Vitae or Resume.

- Up to two examples of recent written work e.g., copy of master thesis, additional publications

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

 Please do not include photographs

Deadline for receipt of applications: 11 December 2020

APPLY