

Deadline: 14 February 2025



APPLY 02-2025

# Researcher in Hydrological and Water Resources Modeling

WATER SECURITY (WAT) RESEARCH GROUP

The **WAT Research Group**, part of the IIASA **Biodiversity and Natural Resources (BNR) Program** is looking to recruit a motivated and talented researcher in global and regional scale hydrological and water resources modeling.

## THE ROLE

The successful candidate will support the development of the in-house open source hydrological and water resources model, Community Water Model ([CWatM](#)). A key focus is on setting up a high-resolution version of CWatM in several case studies within ongoing projects. This involves improvements in modules of human water use, reservoir and irrigation management, water quality, and wastewater treatment and reuse, in addition to running climate, socio-economic and policy change scenarios. Experience with existing hydrologic models and broad knowledge in scenarios modeling and climate change assessments is needed.

## MAIN TASKS AND RESPONSIBILITIES

- Development and application of the CWatM hydrological model, and related software and data sets.
- Collaboratively develop model code that is version-controlled, documented, and reproducible, at different spatial and temporal resolutions.
- Lead the development of modules for non-climatic factors (e.g., agriculture, human water use, reservoir management, wastewater treatment and reuse, water quality) and incorporating policy and management options into CWatM.
- Managing software in subversion systems (GitHub).
- Contribute to project deliverables and write scientific papers in peer reviewed journals to communicate findings.
- Initiate and organize conference sessions and workshops.
- Present methods and results to both technical and non-technical audiences.

## REQUIREMENTS

## WE OFFER

- PhD or master's degree (or equivalent) plus research experience in hydroinformatics, hydrology, climate, environmental science, engineering, informatics or a related field.
- Experience with river basin scale hydrological models.
- Strong interest and background in integrative systems analysis and development of tools to support policy development.
- Programming knowledge and proficiency (e.g., Python or R).
- Experience with Geographic Information Systems (e.g., ArcGIS, or QGIS).
- Experience with concepts of subversioning, Git, GitHub, Jupyter Notebook and similar state of the art software development tools.
- Proven analytical skills and ease in manipulating large data sets and complex modeling systems.
- Fluency in English is essential together with good presentation skills, and experience writing publications.
- 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. The successful candidate must be able to work in, and have respect for, an intercultural environment, and [IIASA core values](#).
- 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.
  - Subject to the principle of income aggregation (Progressionsvorbehalt in German).

## APPOINTMENT TERMS

The selected candidate should be available to take up the position as soon as possible in 2025 (start date negotiable). We offer an initial fixed-term, two-year, full-time (40 hours per week) employment contract, with the possibility of extension thereafter. Eligible applicants wishing to work part-time hours may be considered.

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

The successful candidate will be appointed in accordance with the [IIASA profiles for research careers](#).

## OTHER BENEFITS

- Educational subsidies for children of school age enrolled in private schools in Austria.
- A generous five weeks of annual leave.
- Relocation allowances and paid home leave.
- The possibility to work up to 100 days per year in home office (within Austria).
- 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

[Taher Kahil](#) WAT Research Group Leader  
or

[Peter Burek](#) WAT Senior Research Scholar

For general information about working at IIASA, contact: [recruitment@iiasa.ac.at](mailto:recruitment@iiasa.ac.at)

## Applications

**We invite you to submit your application, including a cover letter, CV, and contact details of three reference givers by clicking on the apply button below.**

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

**Deadline for receipt of applications: 14 February 2025**

**APPLY**