

Deadline: 01 November 2026



APPLY 20-2026

Junior / Research Software Engineer

POLLUTION MANAGEMENT (PM) RESEARCH GROUP

The **Energy, Climate, and Environment (ECE)** program at IIASA is searching for a Research Software Engineer to support the development, operation, quality assurance, and modernization of scientific software and data infrastructure used for integrated assessment modelling.

The position will work closely with Research Software Engineers, researchers, and scientific domain experts and will contribute to the technical infrastructure supporting the **GAINS (Greenhouse Gas - Air Pollution Interactions and Synergies) model**. Front and Backend development are based on the following tools and infrastructure: Oracle | SQL | PL/SQL | Java | Apache Tomcat | SQL Developer | Eclipse | SourceTree |

A key aspect of the role is interdisciplinary teamwork: understanding scientific requirements and domain-specific concepts and translating them into reliable technical solutions. A particular focus will also be the practical integration of Artificial Intelligence (AI) into scientific software and data workflows.

ROLE DEVELOPMENT

The successful candidate will initially work on software, database, data-processing, quality-control, and AI proof-of-concept tasks together with experienced Research Software Engineers and scientific domain experts.

An important part of the onboarding and development process will be building an understanding of the GAINS model, its underlying scientific concepts, data structures, and modelling workflows.

With increasing domain and technical knowledge, the candidate is expected to take responsibility for individual software components, database processes, automated QC procedures, model workflows, and AI-assisted analytical tools.

The role provides a development path toward independently designing and implementing reliable scientific software, data-processing systems, and AI-supported tools while acting as an effective technical interface between software engineering and scientific domain expertise.

MAIN TASKS AND RESPONSIBILITIES

- Develop and maintain components of scientific modelling applications and data-processing workflows.

- Work with large databases and develop SQL queries, views, procedures, validation routines, and automated data-processing tools.
- Support the technical operation and further development of the GAINS modelling system, including scenario updates, model inputs, emissions, control technologies, costs, and model-result validation.
- Support modernization of existing scientific applications and workflows.
- Develop automated tests, quality checks, technical documentation, and reproducible workflows.
- Translate scientific and domain-specific requirements into appropriate software, database, and data-processing solutions.

Interdisciplinary Teamwork & Domain Knowledge

- Work closely with researchers, domain experts, data specialists, and other software engineers.
- Discuss requirements and model behaviour directly with scientific experts and translate methodological requirements into robust technical implementations.
- Contribute to shared documentation and knowledge transfer within the team.
- Continuously learn from both the software-engineering and scientific sides of the modelling system.

SKILLS, QUALIFICATIONS & EXPERIENCE

Education and Background

- Bachelor's or Master's degree, or equivalent experience, in Computer Science, Software Engineering, Data Science, Scientific Computing, Engineering, Natural Sciences, or related discipline.

Essential skills and competencies:

- Good knowledge of SQL and relational database concepts.
- Java or similar coding experience is an advantage, particularly for working with and further developing existing application components.
- Understanding of software development principles, testing, debugging, and version control.
- Strong analytical and problem-solving skills and the ability to work carefully with large and complex scientific datasets.
- Ability and willingness to understand scientific models and the relationships between model inputs, calculations, and results.
- Strong ability and willingness to work collaboratively in an interdisciplinary team and communicate with both technical colleagues and scientific domain experts.
- Good written and spoken English.

Desirable skills:

- Interest in AI, Machine Learning, Large Language

APPOINTMENT TERMS

The successful candidate should be available to take up the position **as soon as possible - No later than January 2027**.

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

The successful candidate will be appointed as a Junior Research Software Engineer (**S1**) **OR** Research Software Engineer (**S2**) depending on qualifications and experience and in accordance with the [IIASA profiles for research software professional careers](#).

WE OFFER

- **1-year** full-time fixed-term contract (100%, 40 hrs/week), with the possibility of extension thereafter. Flexible arrangements on duration can be discussed, and part-time arrangements will also be considered.
- An attractive annual salary starting at **EUR 52,087.00**, exempt from income tax in Austria (social insurance deductions still apply), negotiable depending on the research level you are appointed to.
- 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

Models, and their application within scientific environments.

- Oracle Database and PL/SQL.
- Scientific data processing and analysis; large relational databases and complex SQL.
- Database performance analysis and optimization, e.g., experience with the columnar-based database/datalakehouse
- Automated data validation, quality assurance, statistical methods, and anomaly detection.
- REST APIs and database-backed web applications.
- Interest in air-pollution, climate, energy, emissions, or integrated assessment modelling.
- Previous experience working with researchers or in interdisciplinary scientific teams.

Austria, due to the unique legal status and privileges granted to IIASA.

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

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 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:

[KLIMONT Zbigniew](#) - Research Group Leader and Principal Research Scholar (PM)

[SANDER Robert](#) - Senior Research Software Engineer (PM)

[KIESEWETTER Gregor](#) - Senior Research Scholar (PM)

[NGUYEN Binh](#) - Research Scholar/Software Engineer

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.

Deadline for receipt of applications: 01 November 2026

APPLY