
Job Vacancy Announcement

Research Associate, Junior Research Associate

The Environmental Information Division invites applications for the position of Research Associate and Junior Research Associate as detailed below.

1. Position and workplace

- **Position: Research Associate and Junior Research Associate (Contract Employee)**
- **Open Position: 2~3 candidates**
- **Affiliation: Integrated Data Science Project Team, Environmental Information Division**
- **Workplace: 16-2 Onogawa, City of Tsukuba, Ibaraki Prefecture 305-8506, Japan**
- **Scope of changes in work location: None**
- **Vacancy Announcement No.: R08-R-037**

2. Research Topic

Data-Driven and AI-Enabled Approaches for Advancing Environmental Science

3. Description of Research and Work Duties

This work focuses on advancement of environmental research using statistical mathematics and large-scale machine learning methods. The research will contribute to a wide range of environmental science domains, including climate change, atmospheric and water environments, biodiversity, resource circulation, chemical risk assessment, socio-economic policy, and community collaboration. The research is expected to utilize the NIES Environmental Research Hub (ERHu), a platform designed to strengthen collaboration between research and society based on environmental data.

The research topics listed below are indicative examples, with those presented earlier regarded as higher priorities; however, proposals are not limited to these topics.

- **Research on environmental data analysis, prediction, and knowledge discovery using generative AI and/or foundation models**

- Cross-disciplinary integration of environmental data using AI and data science, as well as research contributing to social implementation and policy support
 - Construction and enhancement of AI models integrated with observational data, numerical models, and data assimilation systems
 - Development and validation of surrogate models for large-scale environmental simulations
 - Development and application of Physics-Informed Neural Networks (PINNs) that incorporate physical laws and constraints
 - Framework development for autonomous experimentation in environmental research, including the automation of experimentation, analysis, learning, and optimal experimental design
- Scope of changes in work duties: Research and general administrative work related to research

4. Qualifications and Requirements

- (1) Ph.D. degree or equivalent for Research Associate, and a master's degree for Junior Research Associate
- (2) Domain knowledge in information science, computational science, environmental science, statistics, or mathematical science; or a combination thereof
- (3) Demonstrated experience in numerical computation, data analysis, or machine learning using Python, R, or related tools
- (4) Proven ability to carry out research in Unix and Linux environments
- (5) Ability to work using English language and disseminate research results
- (6) Sufficient Japanese language skills for daily communication

5. Selection Process

The selection process will be by means of screening applications followed by individual interviews. Applicants who pass the initial screening process will be informed of the interview details at a later date.

6. Application Materials

Applicants must submit the following materials as instructed below.

- (1) CV (Prescribed format)

- (2) List of publications and presentations (organized by original research papers, books, review articles and commentaries, and oral presentations)
- (3) Evidence of technical skills, such as programming or data analysis experience, including specific achievements
- (4) Summary of previous studies (1-2 pages)
- (5) Research aspirations and reasons for applying (1-2 pages)
- (6) Contact information of two referees

- Clearly indicate, within submitted materials, how they meet the qualifications listed in Section 4 (Qualifications and Requirements).
- List past employments (organization names, address, employment periods) in the prescribed format CV.
- Include information if having worked with NIES other than employment contract such as Visiting Researcher, Collaborative Researcher, Research Student, Interns, and dispatch employee.
- Application materials submitted will not be returned. Those submitted by applicants who are not selected will be appropriately disposed of after the selection process has been completed.

7. Application Deadline and Submission Method

- Application deadline: Open until filled
- Submission method: Electronically
 - ✧ The applicant must contact the person listed under Section 12 (Contact Information) in advance for submission instructions, with the subject titled “Application for Data-Driven and AI-Enabled Approaches for Advancing Environmental Science”.

8. Work Conditions and Related Regulations

- Research Associate and Junior Research Associate are treated as Contract Employee.
- Working Hours:
 - ✓ Research Associate... Exempt Working Hours

(deemed to have worked 8 hours and 15 minutes per day regardless of the actual hours worked on weekdays)

- ✓ Junior Research Associate... Full-time (7 hours and 45 minutes per day)
- Basic Remuneration:
 - ✓ Research Associate JPY 5,652,000+ per annum
 - ✓ Junior Research Associate JPY 16,230+ per day
- Probationary Period: 6 months under same working conditions
- The employee may be requested to work overtime and/or on holiday if necessary.
- Compensation will be based on the Regulations Regarding Remuneration for Contract Employees at NIES.
- Social insurance is provided in accordance with the National Public Officers Mutual Aid Association Act, the Health Insurance Act, the Employee's Pension Insurance Act, the Employment Insurance Act, and the Long-Term Care Insurance Act.
- NIES employees may engage in teleworking within a limited number of times per month, subject to case-by-case adjustment through prior consultation with their supervisor in accordance with NIES' Teleworking Guidelines.
- Smoking is only allowed in designated smoking areas due to the secondhand smoke policy.
- For other matters pertaining to this employment, refer to the Rules of Employment for Contract Employees at NIES and related regulations.

(Japanese only) <https://www.nies.go.jp/about/disclosure/kitei/index.html>

9. Date of Commencement

This position will start as soon as possible after August 1, 2026.

10. Term of Contract

This is a contract position that, in principle, terminates at the end of the fiscal year (March 31, 2027). However, depending on the status of the research plan and performance evaluations, it may be possible for the Contract Employee to renew their yearly contract, although in principle, it cannot be extended past March 31, 2029.

The employment contract may be renewed only within the scope not exceeding the fiscal year (April 1 to March 31) that includes the day before the employee reaches the age of 65. If the day before reaching the age of 65 has already passed at the time

of hiring, the contract will be limited to one fiscal year.

11. Others

This work falls under the subject matter of Article 15-2 of the Act on Activation of the Creation of Science and Technology Innovation.

(Japanese only) <https://elaws.e-gov.go.jp/document?lawid=420AC0100000063>

Employed research staff aged under 40 years of age may devote up to 20 % of their efforts to work on their voluntary research activities if NIES approves, based on an enforcement policy regarding voluntary research activities by young researchers employed to conduct project implementation using competitive grants.

12. Contact Information

Applications and any inquiries should be directed to the following person.

Dr. Hisashi YASHIRO

Integrated Data Science Project Team

Environmental Information Division

National Institute for Environmental Studies

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This is an English translation of a Japanese document. If there is a discrepancy between the two documents, the Japanese version takes precedence.