

Tohoku University Advanced Graduate School Next-Generation AI Expert Development Project Application Guidelines for October 2024

Tohoku University provides support to PhD students in Tohoku University's Advanced Graduate School Next-Generation AI Expert Development Project (hereafter, "NEXT-AI" or "project") as part of JST's "Support for Broadening Opportunities for Outstanding Young Researchers and Doctoral Students in Strategic Areas", for which the university has been selected.

NEXT-AI aims to increase the number of doctoral students with a strong desire to pursue research and development in emerging and converging areas within the field of next-generation Artificial Intelligence (hereinafter referred to as "next-generation AI field"). It provides sufficient financial support equivalent to living expenses, allocation of research grants, and training programs. It aims to foster more advanced research experts in the next-generation AI field, thereby increasing the number of doctoral students who will lead the next generation.

Those who wish to apply for the support through this project are encouraged to apply via the designated Google Form.

1. Recruitment Quota

Approximately 6 students

2. Period of Award

From October 2024 until the end of the standard course term for the curriculum.

3. Stipend

1) Incentive Stipend (covers living expenses) JPY 260,000/month

※The stipend is considered "miscellaneous income." Recipients must report it when they file their income tax declaration.

2) Research grant: JPY 780,000/year (JPY390,000 for half a year in FY2024)

4. Eligibility

This project is open to those who understand its objectives; have the ambition and ability to pioneer and lead the next-generation AI field in Japan in the future; and will be enrolled in the 1st year of 3-year doctoral curricula, or the 1st year of medical, dental, or pharmaceutical curricula in October 1, 2024.

※Students who plan to take a leave of absence from October 2024 or long-term students are not eligible to apply.

※ No specific expertise is required, but **applicants must have acquired sufficient knowledge in mathematics, data science, and AI-related fields, as well as research experience and computer skills, by the time of completing their master's coursework. They should also have a highly feasible research plan, including proficiency in English suitable for conducting international collaborative research.**

※For international students, it is required that they possess a strong determination to contribute to the next-generation AI field within universities, research institutions, or industries in Japan even after completing the doctoral program.

※For students affiliated with degree programs, it is necessary to be able to balance the activities of this project with the activities of their degree programs.

5. Restriction on Simultaneous Awards

Those who are receiving any of the following types of financial aid cannot receive support from this project.

1. Those who are receiving other scholarships from Tohoku University or other public institutions.
2. Those who are receiving a scholarship from Tohoku University's Academia-Industry Collaborating Graduate Programs.
3. Those who are receiving the JSPS Research Fellowship for Young Scientists.
4. Those who are receiving the stipend from Pioneering Research Support Project.
5. Those who are receiving a salary as per the Guidelines for the Japanese Government (MEXT) International Student Scholarship System (March 31, 1954, ruling by the Minister of Education).
6. Those who are receiving the JASSO Honors Scholarship for Privately Financed International Students.
7. International students who are receiving a scholarship from their own country.
8. Those who receive salary income, executive compensation, or stable non-repayable scholarship or other support equivalent to this project from a company, university, or private organization (the total of all income of 2.4 million yen per year or more (the total monthly amount of more than 200,000 yen equivalent), excluding this project).
9. Those who are deemed to be equivalent to any of those listed in the preceding items.

※Even if you are receiving a scholarship or have income, etc. that falls under the above-mentioned restrictions on receiving multiple scholarships at the time of application, you may still apply if you are able to decline that scholarship or income after being selected for this project.

※Recipients are permitted to receive scholarships to cover tuition fees, but the amount will be counted towards the JPY 2.4 million limit mentioned in section 8 above.

※This project aims to provide an environment where students can devote themselves to their research. Therefore, students who are employed (regardless of whether their employment on a fixed term basis) or hired part-time (including Teaching Assistant (TA), Research Assistant (RA), and Administrative Assistant (AA)) and if they have estimated income for one year from the time of employment or hiring exceeds 2.4 million yen, they must withdraw from this project at the time of employment or hiring. In addition, regardless of the annual income, etc., if the student is unable to devote themselves to research activities, they must withdraw from this project. In some cases, it may be necessary to ask for the retroactive return of incentive stipends, etc., so please keep this in mind.

※Recipients of Tohoku University's Global Hagi Scholarship may apply to the project but if selected will be required to decline the Global Hagi Scholarship.

※The Tohoku University President Fellowship can be received simultaneously with this project.

※Those who are members of WISE programs should inquire at the office of the affiliated program before applying. There is a restriction set by the WISE program, which is not listed in this document.

※If the scholarship you are receiving does not allow you to receive the other financial aid, you need to follow the rules of that scholarship. When you are selected to this project, you will be required to follow the necessary procedures, which may include withdrawing from the current scholarship. *Recipients are permitted to receive scholarship loans from JASSO.

※Scholarships etc., for the purpose of supporting travel expenses etc., for overseas study, available regardless of the amount, can be received simultaneously with this project. Please also check the restrictions on receiving duplicate scholarships on the scholarship side.

※Teaching Assistant (TA) and Research Assistant (RA) employment of up to 19 hours per week is permitted to the extent that it does not interfere with research activities. However, it must be included in the recipient's income as per section 8 above, including salary, pension, etc., and the recipient must decline the support from the project if their total income etc., exceeds JPY 2.4 million. Recipients must report their annual income status.

※Recipients of this project may be eligible for tuition waiver. However, please keep in mind that if they withdraw from this project, they will also be disqualified from tuition waiver eligibility.

※Be sure to review the "Handbook for Incentive Stipend Recipients" and " Next-Generation AI Expert Development Project, Q&A" after being selected for this project.

6. Application Documents

Prepare the following application documents and submit them via the designated Google Form, by the August 29 (Thu.), 12:00 noon, 2024.

- 1) Research Plan (doctoral program research plan, list of achievements, career paths plan)
- 2) Recommendation letter from your prospective academic advisor

Google Form for Submission:

<https://docs.google.com/forms/d/e/1FAIpQLSexEzzxHZxf3zEoiANCSyB4qG6EBiPEFynWsrgl0XbliZcpaQ/viewform>

7. Selection Method

Applicants will be evaluated on their research plans, content, achievements, evaluations from prospective academic advisors, by documents review. If necessary, interviews will be conducted (September 13 (Fri.)).

8. Announcement of Selection Results

Selection results will be announced by the end of September 2024.

However, formal acceptance into this project is conditional upon being enrolled in the graduate school of Tohoku University as of October 1, 2024.

Students selected for the project will belong to the "Pioneering Research Program Unit" of the Advanced Graduate School.

9. Obligations

- 1) In addition to devoting themselves to their research activities, as outlined in their research plans, project recipients are expected to understand the program's purpose and commit to their studies/research with a suitably sober attitude. If a recipient engages in inappropriate behavior or misconduct, the payment may be withdrawn.
- 2) Students must complete designated training programs.
- 3) Students are required to publish their academic achievements, such as papers or presentations, in the field of next-generation AI, by the end of their doctoral course (by the end of this support period).
- 4) Students must submit a monthly attendance report. They must also promptly report their progress in their studies and research to the director of the Center for Graduate School Innovation at the end of each fiscal year.
- 5) As the stipend is considered "miscellaneous income," recipients must pay income tax. The stipend may disqualify recipients from being claimed as dependents by parents/guardians (for health insurance, dependent allowances, etc.). Recipients should check with their parents/guardians or parents'/guardians' workplaces and perform any necessary procedures.
- 6) The deadline for using the research grant (delivery of goods, completion of business trips, etc.) is the last day of March of the relevant fiscal year. Please follow the

instructions of the accounting section of your affiliated department regarding the deadlines for payment procedures, etc.

- 7) To ensure appropriate use of the research grant, recipients are required to carefully read the "Use of Research Funds Handbook," undergo compliance education on improper use of research funds, attend classes on ethical research, research ethics education e-learning designated by JST etc., and manage the budget appropriately for your own research.
- 8) The academic advisors will oversee matters related to handling intellectual property and confidential materials to ensure that the recipients' research is conducted appropriately and yields usable results.
- 9) Students are required to answer the follow-up surveys conducted by the Advanced Graduate School's Center for Graduate School Innovation.
- 10) Students are asked to participate in the JST's "PhD Students Exchange Meeting" and follow-up surveys.

Students who are selected to this project are required to address all the contents below.

[1st year of doctoral course]

1. Engaging in research and development to generate new AI systems from scratch.
2. Students from both foundational and applied AI fields build a team to engage in competitive and collaborative Project-Based Learning (PBL).
3. Being involved in the planning and operation of international symposiums, seminars, and similar events.

[2nd year of doctoral course]

4. Compile and publish the results of the above-mentioned 1 and 2 in a paper.
5. Take on an educational role in the activities of the above-mentioned 1 and 2.
6. Conduct international joint research for more than 6 months in principle at overseas research institutions related to the AI research field.
7. Compile the results of above-mentioned 6 into an international co-authored paper.

※For students enrolled in degree programs, completing the above-mentioned activities may be considered as fulfilling part of the curriculum of their respective degree programs.

※Travel and accommodation expenses related to 6 above are to be paid from recipients' own research fund.

※If a student is delayed in arriving in Japan or frequently misses the in-person training programs without valid reasons, their acceptance into this project may be revoked.

※Since the project is carried out with assistance from government funding, the support period and content may change depending on national policy.