

Support for pioneering research initiated by the next generation
“Cross the border! Tokyo Tech pioneering doctoral research project”

Spring AY 2023 Application Information

I. Purpose of This Project

Tokyo Tech has established a new support program for doctoral students, "Cross the border! Tokyo Tech pioneering doctoral research project." The purpose of this project is to produce cross-border doctoral students with transferable skills who can intelligently collaborate in different fields based on a highly specialized skill, with the aim of creating new value and a sustainable and reliable society.

This project provides university-wide support for outstanding, aspiring students who will be responsible for the future of science, technology, and innovation in Japan, so that they can go on to doctoral studies without hesitation and choose a wide range of careers that make the most of their abilities, without financial burden or career concerns. The selected students will receive a research incentive grant equivalent to living expenses and support for research expenses for three years and will also be asked to participate in various activities to improve their research skills and support their career paths.

II. Expected Project Slots

43 slots (tentative)

III. Eligibility

Applicants must be willing to contribute to the creation of science, technology, and innovation in Japan even after completing the doctoral course through challenging and interdisciplinary research and must meet all the following requirements.

1. Students who wish to enroll in Tokyo Tech’s doctoral program in April 2023
Note: Applications will be canceled if the applicant does not enroll in the Tokyo Tech doctoral program in April 2023, regardless of the institution where the applicant earned a master’s degree (i.e., whether the applicant earned the degree from Tokyo Tech or another institution).
2. Those who wish to devote themselves to research in the doctoral program
3. Those who are willing to create new value and contribute to making society more sustainable and resilient through acquiring transferable skills that enable them to collaborate with specialists in different fields on top of a base of highly specialized skills
4. Those who live in Japan as of April 1, 2023 and have a bank account in their name (*1)

Note: Students to whom any of the following conditions apply are not eligible:

- a. Those whose current scholarship system restricts them from receiving other scholarships (e.g., recipients of the JSPS Research Fellowship for Young Scientists; Japanese government (MEXT) scholarship students; recipients of overseas government scholarships). Those who are currently applying for such scholarships are eligible on condition that they withdraw their application for or decline support from this program if they are selected for any of those other scholarships.
- b. Those who are scheduled to receive scholarships with a recommendation from Tokyo Tech are ineligible if those scholarship systems restrict them from receiving other scholarships. Those who have already received a recommendation from Tokyo Tech to apply for such scholarships are also ineligible.
- c. Those who are recognized as earning stable income such as salaries and executive compensation exceeding 2.4 million yen per year as living expenses from the university or company to which they belong (However, part-time jobs, RA/TA compensation, paid internships, etc. are not considered stable income and are not subject to the 2.4-million-yen annual income limit. Even in such cases, paid work that interferes with research, career development, or nurturing content initiatives is not acceptable.)
- d. Those who are planning to take a leave of absence (*2)

Scholarships for Doctoral Programs at Tokyo Tech

This project is designed in collaboration with Tokyo Tech Academies TAC-MI, SSS, ISE, and ToTAL, which provide career development and training content. Students registered with these educational institutions are also encouraged to apply. However, please check with the administrative staff of each educational institute for the specific financial support system, as it differs from institute to institute.

Applicants who are scheduled to receive the Tokyo Tech Tsubame Scholarship for Doctoral Students, LST Research Fellow Program, or IIR Research Fellow Program can also apply. However, if you are selected for this project, that scholarship will be terminated. You cannot receive both.

Those who plan to apply for the Tokyo Tech Advanced Human Resource Development Fellowship may also apply for this project. However, it is not possible to receive benefits from both.

This is the only chance for eligible students to apply for this project. If you are not selected, there will be no further opportunity to apply. Please note that after the selected students have been confirmed, if any selected students decide to withdraw, we may additionally select runners-up as alternative candidates from those who were not selected. An additionally selected student may receive funding for the same period as the student who withdrew.

IV. Research Incentives and Funds

4-1. Payment amount Note: All the below (a through d) can be received together.

Item of expenditure	Amount	Eligible persons	Payment method
a. Research Incentives (equivalent	1.8 million yen per year	All	Monthly remittance to

to living expenses)	150,000 yen per month		the account specified by the student
b. Research Funds	400,000 yen per year (Same amount for all)	All	Execution Management at the University
c. Support for Pioneering Research Initiated by the Next Generation Plus	Up to 700,000 yen per year (Varies by student)	Selected from applicants	Execution Management at the University
d. Off-Campus Study Plus	Varies by student	Selected from applicants	Execution Management at the University

a. Research Incentives (equivalent to living expenses)

- 150,000 yen per month (1.8 million yen per year)
- In principle, monthly payments are made to the account designated by the student. (However, the first payment will be made in May for two months.)
- We will not confirm the use of expenses after payment.
- There are no restrictions on how the money is used, and unused portions are not subject to return.
- It is treated as miscellaneous income under the tax law and is subject to income tax and resident tax.
 - You need to file a tax return every year.
 - If you are being treated as a dependent by a person who is obligated to support you (such as a parent) for health insurance, support allowance, etc., be sure to contact the person who is obligated to support you and the person in charge at his/her workplace. (In principle, you need to be removed as a dependent.)
 - You are required to complete and manage your own social insurance (pension, etc.) procedures.
 - For information on how to treat dependents for income tax purposes, please contact your local tax office.

b. Research funds

- 400,000 yen per year
- Expenses can be paid as long as they are necessary for conducting your own research. (However, there are some expenses that cannot be included.)
- The Administrative Budget Manager is your academic supervisor. Tokyo Tech will manage the budget and will retain ownership of all items purchased.
- The period of use is limited to the current fiscal year. Unused funds cannot be carried over and must be returned.

c. Support for Pioneering Research Initiated by the Next Generation Plus

- This is a system that provides additional research funding for research that is judged to be particularly challenging or interdisciplinary.
- After the screening process, successful applicants will be allocated a budget of up to 700,000 yen per year.
- The amount to be allocated will be determined by a screening process, with the maximum amount being the amount stated in the application.
- The funds can be used for expenses that are necessary to conduct your own research. However, a breakdown of expenses must be provided at the time of application, and in principle, the funds must be used as stated in the application.
- The Administrative Budget Manager is your academic supervisor. Tokyo Tech will manage the budget and will retain ownership of all items purchased.
- The period of use is limited to the current fiscal year. Unused funds cannot be carried over and must be returned.
- There is an opportunity to apply for this support every year, and you can reapply regardless of whether you have successfully applied in the past.
- We will start accepting applications for AY 2023 around April 2023. We will notify the details of students after they are selected.

d. Off-Campus Study Plus

- In addition to the Support for Pioneering Research Initiated by the Next Generation Plus, Off-Campus Study Plus provides additional support for travel expenses for off-campus study.
- The money can only be used for travel expenses (transportation, lodging, daily allowance, etc. for off-campus study by the recipient).
- Please apply for Off-Campus Plus as soon as your travel details are decided, at least 50 days prior to departure.
- We will screen applications every month, but we will stop accepting applications when the budget allocated for the specific year is used up.
- The Administrative Budget Manager will be your academic supervisor. Tokyo Tech will manage the execution of the budget, and the payment is made on a reimbursement basis.
- The period of use is limited to the current fiscal year. You cannot carry over unused funds into other fiscal years. (If the period of off-campus study covers different fiscal years, the money has to be allocated and used within each fiscal year.)
- You can reapply regardless of whether you have successfully applied in the past.

4-2. Payment period

Up to 3 years (April 1, 2023 - March 31, 2026)

This support is available only while enrolled in the doctoral program. If the period of enrollment is interrupted by a leave of absence or exceeds three years, support will not be available during the subsequent period. However, in cases where a leave of absence is taken due to a life event such as childbirth or childcare, the

period of support may be temporarily suspended and then resumed or subsequently extended, depending on individual circumstances. (*2)

4-3. Notes

Even though this project provides financial support for doctoral students' research, no employment relationship will be established between the students and Tokyo Tech. Therefore, it is necessary for students to take care of their own social insurance (pension, etc.).

Also, the "Notification of Tax Convention" related to foreign students, etc. cannot be submitted for this project since there is no employment relationship.

V. Obligations

Students selected for this project will have the following obligations

- Understanding that the purpose of this project is to foster cross-border science and engineering doctoral human resources who have both highly specialized skills and transferable skills to intelligently collaborate in different fields and strive to acquire these skills
- Continuing to contribute to the creation of science, technology, and innovation in Japan after completing the doctoral program
- Focusing on research activities based on the research plan (The research progress will be evaluated with reference to the research plan at the time of application.)
- Conducting off-campus study for at least three months (either a single period or a combination of periods). Overseas study is preferred, but research or an internship at a domestic company or academic institution is also acceptable.
- Taking at least two of the designated courses in three years in addition to the credits required for completion of a doctoral degree
- Participating in at least two designated events, courses, etc. from those on the career development and training content list every fiscal year
- Participating in research meetings, workshops, seminars, etc. designated by this project
- Applying for a JSPS Research Fellowship (DC2)
- Taking the designated research ethics and compliance training
- Indicating in acknowledgments that you have received a grant from this project
- Submitting a summary of the above performance and research achievements by the designated date
- Submitting an expenditure record that contains details of the use of research funds, etc.
- Filing a tax return every year
- Cooperating in career-related follow-up surveys for up to 10 years after completing the doctoral program

VI. Selection

6-1. Schedule (Please note that the schedule is subject to change.)

	Schedule	Remarks
Application period	Monday, September 5, 2022, 9:00 a.m. - Noon, Friday, September 30, 2022	You will need to complete both: a. Online application form registration b. Submission of application form
Interviews	Tuesday, November 1; Wednesday, November 2; Monday, November 7, 2022, 6:00 p.m. - 8:00 p.m. (all three days)	The time and method of the interview will be notified to eligible applicants by Friday, October 28. We will only contact those selected at the preliminary screening for an interview. In addition, <u>we are unable to change the designated interview time, so please make sure that you will be available.</u>
Announcement of selection results	Noon, Monday, November 14, 2022	Acceptance deadline: Tuesday, November 15, 2022
Notification of alternative candidates	As needed	If any successful applicants withdraw, we may contact alternative candidates.
Announcement of recipients	Scheduled to be announced on Friday, April 7, 2023	

If there is any change of schedule, it will be announced on the website of the “Cross the border! Tokyo Tech pioneering doctoral research project” (hereinafter referred to as "the website").

<https://tokyotech-crossborder.gakumu.titech.ac.jp/>

6-2. Selection process

【Points considered in selection】

- Is the research plan sufficiently highly specialized and feasible in the priority fields, strategic fields, and basic research related to these fields that Tokyo Tech intends to strengthen, based on the applicant's own academic and research achievements to date?
- Does the research plan include enough challenging and integrative elements?
- Is the study plan challenging enough to achieve the goal of cultivating transferable skills while maintaining the student's high level of expertise through a three-month off-campus study and elective courses from a wide range of events and subjects?
- Is the student's career plan ambitious in terms of solving social problems or implementing strategies for

solving them, based on their doctoral research and the potential it encompasses?

- Are the application documents and interview structured in such a way that the research and its social significance can be easily understood not only by those in the same field of specialization but also by those in related transdisciplinary fields?

【Preliminary screening (document review) 】

Preliminary selection will be conducted based on the submitted documents (application form and transcript). Depending on the results of the preliminary selection, some applicants may be accepted or rejected without an interview.

【Second screening (interview) 】

Only those selected for an interview will be contacted.

Date and time: Tuesday, November 1; Wednesday, November 2; and Monday, November 7, 2022, 18:00 - 20:00 (JST) (all three days)

Presentation time: 5 minutes, Q & A: 5 minutes

Presentation materials (5 PowerPoint slides)

Page 1: Cover (title, name, research field)

Page 2: Background of the study

Page 3: Research purpose and content

Page 4: Appeal of the challenging or integrative aspects of your research

Page 5: How your research can contribute to social change (including potential)

The interview will be conducted via Zoom.

The interview time will be specified. We cannot accept changes to the designated interview time, so please make sure that you will be available.

【Announcement of selection results】

The announcement will be posted on the website.

The results of the first round of selection will not be announced in advance. Only successful applicants will be posted after all the selections have been made.

Successful applicants will be asked to immediately fill out the designated form to indicate their acceptance.

【Notification of alternative candidates】

If any of the successful applicants decide to withdraw from the project, alternative candidates will be selected as needed. Only those applicants will be contacted by email or phone. If you are unable to answer the phone, please call us back as soon as possible.

【Announcement of confirmed recipients】

The announcement will be posted on the website.

After the selected applicants have been confirmed, if any of those applicants decide to withdraw from the project, we may additionally select runners-up as alternative candidates from those who were not selected. An additionally selected student may receive funding for the same period as the student who withdrew.

VII. How to Apply

7-1. Procedures

There are two types of application procedures (a and b), and both procedures must be completed in order for an application to be accepted.

Also, some parts of the application process for this project and for the Tokyo Tech Human Resource Development Fellowship for Doctoral Students (hereinafter, "Fellowship") are the same.

a. Online application form registration (for both applications)

Applicants are requested to register using the application form below.

(For both applications) Form URL <https://forms.gle/ot45EEZeSbtmqASr5>

Application period: Monday, September 5, 2022, 9:00 a.m. to Noon, Friday, September 30, 2022

Applications will not be accepted after the deadline.

b. Submission of documents (for both applications)

Submit the following 2 items:

- (1) Application form
- (2) Transcript of master's degree (If it cannot be submitted by the deadline due to unavoidable reasons, make a comment in the application form.)

(1) Application form

Please download the form from our website.

Please change the file name. → Name_申請書 (Example: Toukou Taro_申請書)

When you have finished filling out the form, please make a PDF file. The file must be uploaded to the URL indicated below by yourself or the expected academic supervisor.

Note: Regarding the signature of the expected academic supervisor

Before applying for this project, applicants must consult with their academic supervisors in their doctoral degree program and obtain their approval.

When it is difficult to obtain the signature of your academic supervisor, contact the administrative office before the deadline.

- (2) Transcript of master's degree (If it cannot be submitted by the deadline due to unavoidable reasons, make a comment in the application form.)

Please name the file as follows → Name_成績証明書 (Example: Toukou Taro_成績証明書)

Please upload it to the URL indicated below.

【Submit to】

(For both applications) Upload URL

<https://tokyotech.app.box.com/f/b17b14c9a958438595d3f050a8acc55c>

In both application processes, "Cross the border! Tokyo Tech pioneering doctoral research project" and the Fellowship, applicants are requested to submit their documents via the same upload URL.

Therefore, if you apply for both, you are requested to submit your documents only once. Make sure not to submit them again.

Submission of hard copies is not required. We do not accept documents by mail or in person.

Application period: Monday, September 5, 2022, 9:00 a.m. to Noon, Friday, September 30, 2022

Applications will not be accepted after the deadline.

【Notes】

- Once submitted, changes to the online form or application documents will not be accepted. Please submit with due care.
- If all required documents have not been submitted, the applicant will not be considered.
- We will not return any of the documents we receive.
- Applicants who make false statements in their application documents will lose eligibility for this project, even after initially being accepted.
- The names and other information of selected applicants and confirmed recipients will be released on the website.

7-2. Research field

Please apply for one of the following cross-cutting 6 fields.

	Target Fields	Overview
1	New Element Strategy	Contribute to the realization of a society that makes effective use of limited resources by developing materials that demonstrate high functionality without using rare elements, and by incorporating new research methods and theories such as kinetics, advanced structural analysis, and materials design into electroactive materials and catalyst technologies, complexes, and molecular compounds.
2	Comprehensive Energy Science	By refining innovative elemental and system technologies, such as all-solid-state batteries and renewable energy systems using hydrogen energy, and integrating these technologies into an integrated energy science, strengthen the driving force for the

		realization of a sustainable energy society.
3	Digital Social Devices and Systems	Power devices, sensor devices, solid-state devices, and communication devices that support millimeter-wave, optical communication, and next-generation mobile communication, as well as their network systems and system control technologies, will be essential infrastructure for all designs in the future society where hardware and software are fused, including the IoT. Establish a global center of excellence for digital social devices and systems in a world where information (bits) is fused with matter (atoms).
4	Sustainable Social Infrastructure (SSI)	Build a next-generation social infrastructure that supports safe and secure living and healthy lifestyles by utilizing robotics, environmental information, internal information sensing, and other technologies based on architectural and structural mechanics.
5	Holistic Life Science (HLS)	In order to realize a sustainable eco-system and a new green revolution, develop an essential understanding of life phenomena, bio information, and global life, based on our strengths in mathematics and materials.
6	Fundamental Research related to the fields above	Basic research related to these fields above.

VIII. Revocation of Funding

Research incentives and funds will be terminated in any of the following cases:

- When the student no longer meets the qualifying criteria for this project
- When the student does not fulfill obligations due to his/her failures
- When the student takes a leave of absence (*2)
- When the student exceeds the standard duration of study (3 years)
- When the student declines to participate in the project
- When the student withdraws, transfers out of, or is dismissed from Tokyo Tech
- When the student is subject to disciplinary action
- When the student is otherwise found to be unsuitable for the project

IX. Handling of Personal Information

The personal information contained in the application documents will be strictly managed in accordance with the "Personal Information Protection Regulations of the National University Corporation Tokyo Institute of Technology" and will be used only to carry out the work of this project. In addition, part of the personal information will be used for a monitoring survey by JST and a follow-up survey after completion of the doctoral course.

X. Contact Information

For inquiries, please use the inquiry form on our website (no emails or phone calls).

“Cross the border! Tokyo Tech pioneering doctoral research project”

Website <https://tokyotech-crossborder.gakumu.titech.ac.jp/>

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Website: <https://tokyotech-crossborder.gakumu.titech.ac.jp/>

(*1) In principle, we will have to revoke funding if the requirement is not met. As for the documents related to your bank account, we will ask you to submit them in the first half of April. Therefore, please prepare the documents prior to your enrollment in the doctoral program.

(*2) If the leave of absence is for reasons such as childbirth, childcare, or injury or illness, and the committee approves, selection of the student may not be cancelled. In this case, payment of the research incentives and research funds will be temporarily suspended during the period of the leave of absence, and will be resumed when the student returns to Tokyo Tech. If you are planning to apply for this project, please consult with us in advance using the inquiry form on our website.