# NIFS 2024 Application Guideline

(Last updated: December 15, 2023)

### Introduction

We have conducted an international graduate program "Development of Human Resource of Data Science and AI Promoting Digital Transformation (AIQDS)" in the period between 2021 and 2023 in order to achieve accelerations of digital transformation involving those changes in rapid improvement of AI technology and its commoditization. From this year, we proceed next international graduate program "Fostering Human Resources in New Interdisciplinary Fields in the Society 5.0 Era (NIFS)". The NIFS program utilizes knowledge from information science, which combines knowledge from different specialized fields, to focus especially on the five key axes: materials science, aging society, artificial intelligence, innovation and entrepreneurship, and sustainability. The purpose of this program is to develop international human resources with comprehensive problem-solving skills for the Society 5.0 era, who provides solutions for sustainable economic development has the ability to collaboratively solve real-world challenges through practical projects and industry-academia collaboration to shape the future by combining knowledge from different disciplines.

NIFS fosters interdisciplinary human resources with comprehensive problem-solving and innovation skills across different academic disciplines. It offers attractive programs that provide a foundation for research in economics, psychology, philosophy, and other fields in order to use innovation and entrepreneurship to solve problems - materials science, aging society, artificial intelligence (AI), medical sciences, and more.

Graduate School of Information Sciences (GSIS) plays a managing role of NIFS at Tohoku University. The students take their expertise course in GSIS, and learn most of the subjects/trainings related to data science, social sciences and PBL in GSIS. The courses related to the program are mostly taught in English. In addition to learning of the expertise and data science as well as comprehensive problem-solving skills, NIFS expects the students to get familiar with Japanese language and culture, and to build various human networks.

### Program

The NIFS is a graduate program that combines a two-year master's course with a three-year doctoral course. A student in NIFS must enrolled in the Graduate School of Information Sciences (GSIS). The student's learning and research are supervised by a primary mentor in the student's graduate school.

#### Master's course

(1) Course work

- I. Expertise course offered by our graduate school
- II. Existing fundamental data science course
- III. Innovation & Entrepreneurship course: innovation, entrepreneurship, materials science, ageing, AI, sustainability, economics, psychology, philosophy, etc.
- (2) Practical training and internship
- I. Entrepreneurship training camps
- II. Internship in private companies (elective subject)
- (3) Research work for the master degree in the student's graduate school

### Doctor's course

- (1) Innovation & Entrepreneurship project-based learning of real-world problem solving
- (2) Advanced Entrepreneurship seminars: The program assigns international conference, symposium, and/or workshop as advanced entrepreneurship seminar
- (3) Research work for the PhD in the student's graduate school

### Financial Support

Japanese government (Ministry of Education, Culture, Sports, Science and Technology; MEXT) scholarship will be available for excellent students who intend to be actively engaged in the NIFS program and contribute to its objectives. A monthly stipend is available; the detail and other information are listed below. Awardees of the scholarship will be selected from the candidates who are successful in the NIFS screening. The MEXT scholarship scheme applies only to those who live outside of Japan at the time of application and were born on or after **April 2, 1989**.

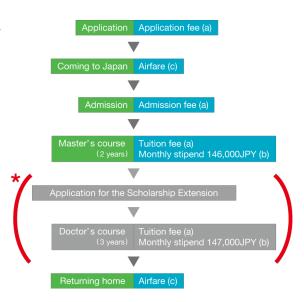
- (a) Exemption from Application, Admission and Tuition fees
- (b) Monthly stipend: **146,000** JPY for 2 years in Master's course.
- (c) Flight tickets between the applicant's country of nationality and Japan
- \* Self-financed students are also encouraged to participate in NIFS.

### For Master and Doctor: 5 years course

Number of recipient as the candidate of MEXT scholarship: 4 students

Term of the scholarship: 2-years in Master's course.

★ Please contact NIFS Admissions Office to see what kind of support can be considered when you go onto your Doctor's course.



### For Doctor: 3 years course

Please contact NIFS Admissions Office to see what kind of support can be considered.

[Remark] The present application guideline and its selection procedure of the international graduate program "Fostering Human Resources in New Interdisciplinary Fields in the Society 5.0 Era (NIFS)" in 2024 is under the application guideline for research students in the following Japanese Government (MEXT) Scholarship for 2024 (University Recommendation) [Special Selection]:

<a href="https://www.mext.go.jp/content/20231108-mxt\_kotokoku02-000032633-02.pdf">https://www.mext.go.jp/content/20231108-mxt\_kotokoku02-000032633-02.pdf</a>

## Eligibility

- Most of the applicants should have been an excellent student newly coming from abroad to study as a graduate-level foreign student. From the viewpoint of attracting the best international students, it is possible to nominate international students presently residing in Japan for priority placement.
- Applicants must have earned over 2.3 evaluation point average of their latest or current degree program based on the specialized calculation (see note [1]).
- Language proficiency: Applicants must satisfy any one of the following conditions to prove that they have sufficient English language ability. Applicants must pass or achieve scores in English language proficiency tests that correspond to B2 or higher level in the Common European Framework of Reference for Languages (CEFR) at the time of application.
- NIFS admission office strongly recommends that applicants should leave for and arrive in Japan by the beginning of **October**, **2024**.
- Applicants for NIFS need to satisfy one of the following conditions:

#### For 5 years Master's and Doctor's Course Applicant

- i) Those who have graduated, or will graduate, from a university, that is, completion of a total of **16** years of school education by **September 30, 2024** (see note [2]).
- ii) Those who have reached 22 years of age by September 30, 2024 and can be recognized to have an academic ability equivalent or superior to those who have graduated from a university based on individual qualification examinations.

### For 3 years Doctor's Course Applicant

- i) Those who have earned, or will earn, Master's degree by September 30, 2024.
- ii) Those who have engaged in research activities for at least 2 years at an educational or research institution after graduation from a university and can be recognized to have an academic ability equivalent or superior to those who have earned Master's degree on the basis of their research performance.
- iii) Those who have reached 24 years of age by September 30, 2024 and can be recognized to have scholastic ability equivalent or superior to those who have earned Master's degree based on individual qualification examinations.

#### Notes

[1] The calculation procedure of the evaluate point average

University (undergraduate) .....

| Scale                       | Grade  |       |       |       |     |
|-----------------------------|--------|-------|-------|-------|-----|
| 4-scale evaluation          | A      |       | В     | С     | F   |
|                             | 100-80 |       | 79-70 | 69-60 | 59- |
| 5-scale evaluation          | S      | A     | В     | С     | D   |
|                             | A      | В     | С     | D     | F   |
|                             | 100-90 | 89-80 | 79-70 | 69-60 | 59- |
| Evaluation Point            | 3      | 3     | 2     | 1     | 0   |
| Number of your total credit | N4     | N3    | N2    | N1    | N0  |

Evaluation Point = 
$$\frac{(N4 + N3) \times 3 + N2 \times 2 + N1 \times 1}{N4 + N3 + N2 + N1 + N0}$$

[2] The term "graduated from a university" means a total of **16** years of educational programs, which consists of 12 years of school education and a 4 years undergraduate (bachelor) program.

e.g. Educational programs in Japan: 6 years Elementary (primary) school..... 3 years 12 years total 16 years Junior high (secondary) school..... Senior high (higher secondary) school....

- [3] Nationality: Applicants must have the nationality of a country that has diplomatic relations with Japan. Applicants who have Japanese nationality at the time of application are not eligible. However, persons with dual nationality who hold Japanese nationality and whose place of residence at the time of application is outside of Japan are eligible to apply as long as they choose the nationality of the other country and renounce their Japanese nationality by the date of their arrival in Japan (the acquisition of student status).
- [4] Attension after passing the examination by the selection committee of the international graduate program NIFS

### 1. Arrival in Japan

In principle, applicants must be able to arrive in Japan during the period specified by the accepting university within two weeks before and after the starting date (September or October) of the relevant academic term for that year in the Graduate School of Information Sciences, Tohoku University, Japan.

Excluding cases in which the Ministry of Education, Culture, Sports, Science and Technology (MEXT) of Japan deems as unavoidable circumstances, the applicant must withdraw from this scholarship program if the applicant cannot arrive in Japan by the end of the specified period above.

[5] Visa Requirement / Status of Residence: An applicant shall, in principle, newly obtain a "Student" visa at the Japanese diplomatic mission located in the applicant's country of nationality, and enter Japan with the residence status of "Student."

Please also note that if a grantee arrives in Japan without newly obtaining a "Student" visa, scholarship payments will be cancelled. Moreover, as the Japanese government requires pre-arrival tuberculosis screening for some countries, applicants obtaining a visa shall follow guidance at the overseas establishment of Japan located in the applicant's country of nationality.

#### \* Visa requirements and status of residence for domestic recommenders

For those whose current status of residence is not "Student," applicants must change their status of residence to "Student" at the local Immigration Services Agency in Japan by time of registration as students at the accepting university. Even in cases of having other statuses of residence ("Permanent Resident," "Long Term Resident", etc.), applicants must change their status to "Student" and begin their courses of study as Japanese Government (MEXT) Scholarship students. It is important to note that applications for "Permanent Resident" or "Long Term Resident" status after status of Japanese Government (MEXT) Scholarship student ends, may not be granted as a matter of course. Also, if studies as Japanese Government (MEXT) Scholarship students begin without changing status of residence to "Student," scholarships will be canceled.

For those whose current status of residence is "Student," they must complete the renewal procedures before the expiration of their periods of stay. Additionally, in the event of changes in school enrollment, notification must be submitted pursuant to the provisions of Article 19-16 of the Immigration-Control and Refugee-Recognition Act.

## Non-Eligibility

Those who meet any one of the following conditions are ineligible. If identified ineligible after being selected as a scholarship student, he/she must withdraw from the scholarship.

- 1) Those who are military personnel or military civilian employees;
- 2) Those who cannot arrive in Japan by the date specified by MEXT or the accepting university;
- 3) Those who are previous grantees of Japanese Government (MEXT) Scholarship programs (including those who withdraw from the scholarship program after acquisition of student status). However, this does not apply to those who wish to apply for Research Students program and meet any one of the following conditions. In addition, since the Monbukagakusho Honors Scholarship for Privately-Financed International Students does not apply to the Japanese Government (MEXT) Scholarship programs, the previous grantees can apply.
  - those who have at least three years of educational or work experience following the end of the payment of the previous scholarship and the start of this scholarship;
  - the past grantees of Japanese Studies Students program who have graduated or are going to graduate from universities in their home countries, Japan-Korea Joint Government Scholarship Program for the Students in Science and Engineering Departments and Young Leaders' Program;
  - those who have obtained or are expected to obtain a degree as undergraduate students of the Japanese Government (MEXT) Scholarship programs (university recommendation/special selection).
- 4) Those who are currently also applying to another program under the Japanese Government (MEXT) Scholarship system. This includes the programs for which scholarship payments will begin in FY2024;
- 5) Those who are planning to receive scholarship money from an organization other than MEXT (including a government organization of the applicant's country) on top of the scholarship money provided by MEXT after the start of the scholarship payment (the acquisition of student status);
- 6) Those who are expected to graduate at the time of application and cannot satisfy the condition of academic background by the deadline given;
- 7) Holders of dual nationality at the time of application who cannot verify that they will give up Japanese nationality by the time of the arrival in Japan (the acquisition of student status);
- 8) Those who plan to, from the time of application for the MEXT scholarship program, engage in long-term research (such as fieldwork or internship) outside Japan or plan to take a long-term leave of absence from the university;
- 9) Those who have no intention to obtain a degree.

### **Application**

### Application period

- -Application period: December 14, 2023 January 5, 2024
- -Notification Period: Middle of April, 2024
- -Program begins on October 1, 2024 (Fall semester, 2024)

### How to Apply

Step 1: Find the candidate of your prospective supervisor among the faculty member in the field of your interest.

Application will not be accepted without the consent of acceptance by your prospective supervisor. Note that the supervisor must be a professor or an associate professor of either

Department of Computer and Mathematical Sciences,

Department of System Information Sciences,

Department of Human-Social Information Sciences

or

Department of Applied Information Sciences

in the Graduate School of Information Sciences (GSIS) of Tohoku University, Japan. To look for the faculty member, refer to the following websites:

### · Graduate School of Information Sciences

- <a href="http://www.is.tohoku.ac.jp/en/laboratory/list\_dept/">http://www.is.tohoku.ac.jp/en/laboratory/list\_dept/</a>
- \* We remark that Colaborative Laboratories and Promotion Office in the above website should not be included as your prospective labratory.

Step 2: Contact directly to the candidate of your prospective supervisor via e-mail and request the consent of acceptance. First you have to request and get the letter of acceptance that the professor or the associate professor is agree to be your supervisor in the Graduate School of Information Sciences, Tohoku Universit, Japan, on the condition that you pass the examination by the selection committee of the international graduate program NIFS. The letter of acceptance should include the signature and the date by the prospective supervisor. The letter of acceptance should be used the Form A.

To contact the faculty member, it is strongly advisable to:

- Gather information about the faculty member and their field of research by looking at their publications, research papers, and personal website.
- Provide your academic background and application information.
- Inform the name of your current or the latest supervisor as a reference.

# Step 3: Fill out the online application form and upload all of the following required documents via online system "Application" in NIFS Admissions Office by January 5, 2024.

\*The online system "Application" will be open on December 14, 2023.

Please check the NIFS website when the period starts.

#### <Required documents>

- 1) Letter of acceptance as a supervisor from one of professors and associate professors in the Graduate School of Information Sciences, Tohoku University, Japan: **Form A**
- 2) Official recommendation letter from the dean or higher position of your last institute: Form B
- 3) Application for Japanese government (MEXT) scholarship: Form C
  - \* Paste the ID photo of the applicant in the designated place in the Form C. This application should include the ID photo data of the applicant with clear image quality and 5MB or less for the data size in either jpg, png or gif format.
  - \* The applicant should submit the Form C in an editable state.
- 4) Field of Study and Research Plan: Form D
- 6) Official academic transcript(s)

**Doctor's course applicant**: official academic transcripts of undergraduate and master's course

Master's + Doctor's course applicant: official academic transcript of undergraduate

7) Certificate(s) of graduation

**Doctor's course applicant**: one of the followings is necessary to submit.

- Photocopy of master's diploma
- ·Certificate of graduation of master's course
- ·Certificate of enrollment of master's course with expecting date of graduation

**Master's + Doctor's course applicant**: one of the followings is necessary to submit.

- Photocopy of bachelor's diploma
- · Certificate of graduation of undergraduate
- ·Certificate of enrollment of undergraduate course with expecting date of graduation
- 8) Photocopy of a valid score report of designated English test as below
  - •TOEFL (iBT or PBT) •IELTS •TOEIC(R) Test

- \*We do not accept TOEFL-ITP
- \*Unnecessary for native English speakers and those who have completed their education with English as the primary language
- \* The TOEFL iBT Home Edition score report must be accompanied by a screenshot/PDF of the official ETS website for your country, stating that it can be treated as equivalent to a regular score.
- 9) Photocopy of your passport or other identification documents
- 10) Abstracts of thesis of undergraduate and master's course (if applicable)
- 11) Other supporting materials
- 12) Extra ID photo data of the applicant with clear image quality and 5MB or less of the data size in either jpg, png or gif format
  - \* The file name should include your name, for example [First Name]\_[Famaliy Name].jpg.
- 13) Memorandum of understanding by application for approval by the applicant to allow Tohoku University to confirm enrollment and inquire about the authenticity of the reference institution for the purpose of confirming the authenticity of "all the documents submitted by the applicant." The memorandum should include the signature of applicant and its exact signature date by oneself: Form E
- \* The forms can be found on the website.

#### [Attention]

- Do not alter the prescribed format of the download files. Attach an additional sheet if necessary.
- Forms should be typed in English. Attach an English translation of the documents written in a language other than English.
- Any of the application documents will not be returned to the applicant.
- All the applicants who are accepted in the present NIFS selection will be requested to submit the original transcript and English score sheet submitted during the online application, after the notification of acceptance will be received. If there is a discrepancy between the documents uploaded to the web application system and the originals submitted during the admission procedure, or if the originals of various certificates cannot be submitted, the acceptance notification may be canceled and the admission may not be granted due to the insufficient documentation.

### Selection

The NIFS selection consists of the documents screening and the Zoom interview. You will be informed the detail from the examining committee via e-mail after the application deadline.

The result of the selection (NIFS admission and MEXT scholarship nomination) will be announced by the middle of April from the NIFS Admissions Office although the final result of MEXT scholarship will be announced in the middle of June, 2024.

### **Contact Information**

### **NIFS Admissions Office**

Graduate School of Information Sciences, Tohoku University

Aramaki-aza-Aoba 6-3-09, Aoba-ku, Sendai, 980-8579 JAPAN

E-mail: <u>ilo@is.tohoku.ac.jp</u> Tel: +81-22-795-4691

\*Those who are inquiring by e-mail, please: Include "NIFS" in the subject line.

### **Related Websites**

### **Tohoku University**

Website of graduate schools participating in NIFS

Graduate School of Information Sciences < http://www.is.tohoku.ac.jp/index-e.html>

- Fee Waivers and Deferment of Payments < http://www2.he.tohoku.ac.jp/menjo/>

### Supports for international students

- Tohoku University International Support Office (TU Support)

<http://sup.bureau.tohoku.ac.jp/index\_en.html>

- Global Learning Center, Tohoku University

<https://www.insc.tohoku.ac.jp/english/>

- Tohoku University Guide for Prospective International Students

< https://www.insc.tohoku.ac.jp/english/wp-content/uploads/2023/04/TOHOKU-

UNIVERSITY-GUIDE-2023-2024.pdf >

- Pocket guide for Procedures International Students

<a href="http://sup.bureau.tohoku.ac.jp/images/PocketGuide.pdf">http://sup.bureau.tohoku.ac.jp/images/PocketGuide.pdf</a>

### Other Related Website

- Ministry of Education, Culture, Sports, Science and Technology (MEXT)

<http://www.mext.go.jp/english/>