



Tohoku University

Data Sciences Program

Human Resource Development of Data Science Incorporating
with Advanced Research and Education Programs

Cooperating Graduate Schools:
Information Sciences (GSIS) *Coordinator
Life Sciences
Economics and Management
Biomedical Engineering

Guidance 2020

Introduction

The Data Sciences Program (DSP)II started on October 2018 as one of the “International Priority Graduate Programs (PGP) - Advanced Graduate Courses for International Students - ” supported by the Ministry of Education, Culture, Sports, and Technology (MEXT).

Main purpose of this program is to develop highly-specialized global human resource of data science contributing to construction of social, life, and environmental foundations. The program is designed to acquire not only basic knowledge and skills of data science based on computer science, fundamental mathematics, and engineering, but also practical skills for discovery and solving the real world problems in life sciences, economics, biomedical engineering and others. Graduate School of Information Sciences (GSIS) conducts this program in collaboration with graduate schools of Life Sciences, Economics and Management, and Biomedical Engineering in Tohoku University. The courses will mainly be given in English except for some optional subjects to learn Japanese language and culture.

Program

DSPII consists of a graduate program combining 2-year Master’s and 3-year Doctor’s course. Students should be affiliated with one of the four graduate schools: Graduate Schools of Information Sciences (GSIS), Life Sciences, Economics and Management, and Biomedical Engineering. Primary mentor and sub mentor are assigned to every student participating DSPII for supervising their learning and research. The primary mentor is the supervisor of the student in her/his affiliated graduate school, and the sub mentor is the professor/associate professor has been matched to the student from GSIS. The course curriculum is organized as follows:

Master’s course

(1) Lectures

- i. Specialized subjects provided by the affiliated graduate school.
- ii. Fundamental subjects to learn information law and ethics for the treatment of big data.
- iii. Interdisciplinary subjects designated to data science: sensing, storage, computation/analysis, data mining/discovery and solving the real world problems

(2) Practical training and internship

- i. Training Camp to develop computational ability of big data
- ii. Internship in industries

(3) Writing a master thesis supervised by the mentors

Master’s course : 2 years

Lectures

Practical training

Master’s thesis

Doctor's course

- (1) Advanced seminars: Data science-related meetings, symposia, and conferences assigned by DSPII
- (2) Big data challenge: Project-based learning based on knowledge and skills of data science
- (3) Writing doctor thesis supervised by the mentors

Doctor's course : 3 years

Advanced seminars
Project-based learning
Doctor's thesis

Eligibility for DSPII 2020

- Applicant must be an excellent student newly coming from abroad to study as a graduate-level foreign student.
- Applicant must have earned over **2.3** evaluation point average of their latest two-year's academic grade based on the specialized calculation (see note [1]).
- Applicant must be able to leave for and arrive in Japan by the beginning of **October, 2020**.
- Applicant for DSPII 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, 2020** (see note [2]).
- ii) Those who have reached **22** years of age by **September 30, 2020** 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, 2020**.
- 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, 2020** 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

Scale	Grade				
	A	B	C	F	
4-scale evaluation	100-80		79-70	69-60	59-
	S	A	B	C	D
5-scale evaluation	A	B	C	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

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

[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:

Elementary (primary) school.....	6 years	} 12 years	} total 16 years
Junior high (secondary) school.....	3 years		
Senior high (higher secondary) school....	3 years		
University (undergraduate)	4 years	-----	

Financial Support

Japanese government (MEXT) scholarship will be available for excellent students who intend to be actively engaged in the DSPII 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 DSPII 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, 1985**.

- (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 DSPII.

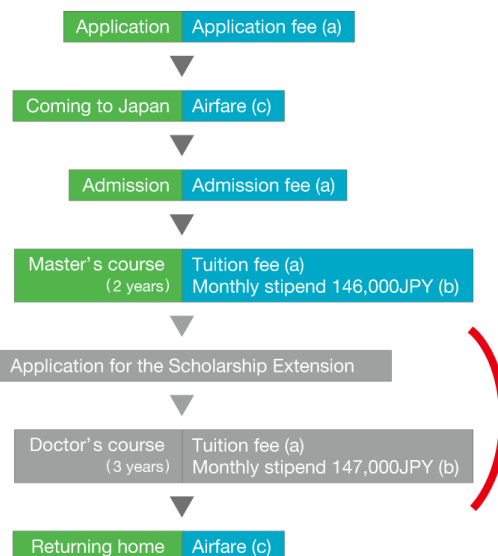
For Master and Doctor: 5 years course

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

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

* Kindly note that we cannot guarantee the financial support when you go onto your Doctor's course at the moment because of the termination of scholarship program.

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



For Doctor: 3 years course

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

Application

Application period

- Pre-application period: **January 6, 2020 - January 17, 2020**
- Deadline of Application: **January 29, 2020**
- Notification Period: **Middle of April, 2020**
- Program begins on **October 1, 2020** (Fall semester, 2020)

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 your prospective supervisor. Note that the supervisor must be a professor or an associate professor in one of the graduate schools of DSPII.

To look for the faculty member, refer to the following websites:

- **Graduate School of Information Sciences**
<http://www.is.tohoku.ac.jp/en/laboratory/list_dept/>
- **Graduate School of Life Sciences**
<<http://www.lifesci.tohoku.ac.jp/en/research/>>
- **Graduate School of Economics and Management***
<<https://www.econ.tohoku.ac.jp/english/index.html>>

· Graduate School of Biomedical Engineering

<<http://www.bme.tohoku.ac.jp/english/>>

[Attention]

The applicants of Graduate School of Economics and Management need to prepare not only the required documents for DSPII but also the following required documents (see the following URL), then submit them (or the both) to the DSPII Admission office.

· GPEM_Required documents

http://is.tohoku.ac.jp/_eng/dsp2/form/DSP2020/GPEM/GPEM_Required_documents.pdf

· GPEM_Pledge_EN

http://is.tohoku.ac.jp/_eng/dsp2/form/DSP2020/GPEM/GPEM_Pledge_EN.pdf

Step 2: Contact directly to the candidate of your prospective supervisor via e-mail and request the consent of acceptance

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.

Important!

After getting the consent, you must ask your prospective supervisor to send a notification of acceptance by e-mail to DSPII Admissions Office (ilo@is.tohoku.ac.jp) (and to your e-mail address as Carbon Copy (CC) if you want).

A sample of the notification of acceptance as a candidate ([PDF](#)) ([WORD](#))

Step 3: Fill out the Pre-application form in the period of January 6, 2020 – January 17, 2020

*The online system “Pre-application” will be open on **January 6, 2020**

Please check the DSPII website when the period starts

[Attention]

You must have the consent of acceptance from your prospective supervisor to do the Pre-application

Step 4: Send all of the required documents (original) via air mail to DSPII Admissions Office by January 29, 2020.

<Required documents>

- 1) Application for admission: **Form A** ([PDF](#)) ([WORD](#))
*ID Photo should be pasted not stapled and have your name on the back
- 2) Two recommendation letters from different references: **Form B** x2 ([PDF](#)) ([WORD](#))
*Do not open the recommendation letter
- 3) Application for Japanese government (MEXT) scholarship: **Form C** ([PDF](#)) ([EXCEL](#))
*Duplex printing
*ID Photo should be pasted not stapled and have your name on the back
- 4) Field of Study and Research Plan: **Form D** ([PDF](#)) ([WORD](#))
*Duplex printing
- 5) Official recommendation letter from the dean or higher level of your last institute:
Form E ([PDF](#)) ([WORD](#))
*Do not open the recommendation letter
- 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

*Applicants of Graduate School of Economics and Management should follow the direction “GPEM_Required Documents” in “Step 1”.

- 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) 3 extra ID photos (4×3cm (1.6"×1.2"))
 - *Write your name on the back

[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.**

Selection

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

The result of the selection (DSPII admission and MEXT scholarship nomination) will be announced by the middle of April from the DSPII Admissions Office although the final result of MEXT scholarship will be announced in July, 2020.

Contact Information

DSPII Admissions Office

Graduate School of Information Sciences, Tohoku University
Room 413, 6-3-09 Aramaki-aza-Aoba, Aoba-ku, Sendai, 980-8579
JAPAN

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

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

Related Websites

Tohoku University

- Academic research staff at Tohoku University <<http://db.tohoku.ac.jp/whois/TunvTopE.html>>
- Websites of Graduate Schools of DSPII
 - Information Sciences** <<http://www.is.tohoku.ac.jp/index-e.html>>
 - Life Sciences** <<http://www.lifesci.tohoku.ac.jp/en/>>
 - Economics and Management** <<https://www.econ.tohoku.ac.jp/english/page-graduate.html>>
 - Biomedical Engineering** <<http://www.bme.tohoku.ac.jp/english/>>
- 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
<<http://www.insc.tohoku.ac.jp/cms/index-e.cgi>>
- Tohoku University Guide for Prospective International Students
<<https://www.insc.tohoku.ac.jp/japanese/wp-content/uploads/2019/03/TohokuUniversityGuide-2019-2020.pdf>>
- Pocket guide for Procedures International Students
<<http://sup.bureau.tohoku.ac.jp/images/PocketGuide.pdf>>

Others

- Ministry of Education, Culture, Sports, Science and Technology (MEXT)
<<http://www.mext.go.jp/english/>>