APPLICATION PROCEDURE FOR ADMISSION TO THE GRADUATE SCHOOL

DOCTORAL COURSE OF MURORAN INSTITUTE OF TECHNOLOGY FOR

Project base AI learning program utilizing the cooperation with private corporations (PBL-AI Program)

DATE OF ENTRANCE: April, 2023



Office of Admissions Strategic and Action Plan, Muroran Institute of Technology

 $27\mbox{-}1$ Mizumoto-cho, Muroran, Hokkaido, JAPAN
 $050\mbox{-}8585$

E-mail nyushi@mmm.muroran-it.ac.jp

https://muroran-it.ac.jp/

< To Applicants >

You must discuss your research theme thoroughly with a faculty member whom you want to be your supervisor before submitting your application.

https://muroran-it.ac.jp/uploads/sites/6/2022/07/supervisor_mc_202304.pdf

©Muroran Institute of Technology has established the "Muroran Institute of Technology Security Trade Control Regulations" in accordance with the "Foreign Exchange and Foreign Trade Act", and rigorously screens Foreign students.

Foreign applicants who fall under any of the conditions set out in said regulations maybe unable to enter their desired course or program.

©All dates and times stated in this guideline are based on Japan Standard Time

The information in this document is subject to change depending on the spread of COVID-19 infection.

Any changes will be announced on the Muroran IT 's official website.

On the Handling of Personal Information

Muroran Institute of Technology (Muroran IT) complies with Personal Information Protection Act and other applicable ones and attempts to protect your personal information in accordance with Muroran IT's Personal Information Management.

Personal information submitted to Muroran IT in the form of application documents will be used for selecting applicants for admission and as resources for reviewing the method for selecting applicants for admission. For admitted students, personal information will be used for registrar (student registry, learning assistance, etc.) and student support (tuition exemption, scholarship, etc.).

Admission Policy

The basic philosophy of Muroran Institute of Technology is "to provide comprehensive science and engineering education, taking advantage of the environment of Muroran, a city rich in nature and manufacturing, to nurture future engineers and scientists, to develop creative science and technology research in harmony with people, society and nature, to serve as a center of knowledge in the local and international communities, and to contribute to the development of the society.

Based on this philosophy, educational goals, human resource development vision, degree awarding policy (diploma policy), and curriculum policy, in order to develop human resources equipped "expertise and interdisciplinary skills," "resilience and comprehensive perspective," and "sociality and communication skills" stated the development vision of the Master's and Doctoral Programs, the following individuals are sought, respectively.

(1) Graduate School of Engineering

- 1) Master's Program
 - 1. Who have basic expertise equivalent to a bachelor's degree in science and technology
 - 2. Who have a desire to acquire knowledge and information/data processing skills beyond their field of specialization in addition to their advanced expertise
 - 3. Who have a desire to discover and solve diverse problems
 - 4. Who have acquired a rich cultural background and are willing to collaborate with and contribute to the community and society at large.

2) Doctoral program

- 1. Who have expertise equivalent to a master's degree in science and technology
- 2. Who are willing to acquire broad knowledge beyond their specialized fields and practical research skills including information and data processing technologies, in addition to deepened and advanced specialized knowledge.
- 3. Who are willing to work on solutions of complex and difficult issues with comprehensive perspective.
- 4. Who have acquired a rich culture and advanced communication skills, and who are willing to collaborate with and contribute to the international and local communities at large.

(2) Student profile required for each Division in the Master's Program

1) Division of Sustainable and Environmental Engineering

In order to build a sustainable society in harmony with the environment in light of changes in the natural and social environment, the applicant should specialize in one of the following environment-related fields, have a desire to acquire knowledge and abilities beyond his/her field of specialization, and have the basic background to achieve these goals.

Research and development related to the creation of useful substances that make advanced use of chemical reactions and biological functions, the construction of systems that apply those substances and related phenomena, and the establishment of technologies to improve the living environment.

Research and development related to the construction, maintenance, and preservation of social infrastructure, including buildings and underground spaces, and disaster prevention

Research and development of planning, design, and construction for the creation of cities and residential spaces where people can live comfortably and safely

2) Division of Production Systems Engineering

By promoting and integrating fundamental research in the fields of aerospace aircraft and next-generation robots, which are the fruits of systems technology integration, the mechanical engineering fields that support these, and the physical properties and materials science fields required for the creation and development of advanced materials, we will create systems and develop elemental technologies that transcend conventional frameworks, thereby addressing environmental issues and Have the desire and basic knowledge to contribute to solving increasingly complex problems, such as energy issues.

3) Division of Information and Electronic Engineering

Systematic knowledge and expertise in the fields of information engineering and electrical and electronic engineering related to information systems and mathematical data science, electrical energy, communication systems, electronic devices, optical and quantum measurement technology, and control technology, as well as communication skills, teamwork skills, ethics, and self-learning abilities. And have the motivation and basic knowledge to carry out research and development in response to the needs of the society.

(3) Division of Engineering

The Division seeks a wide range of students who meet any of the following criteria

Who have the desire and ability to tackle complex issues in a wide range of environmental and creative engineering fields to build a sustainable society in harmony with the environment, taking into account changes in the natural and social environment.

Who have the desire and ability to tackle complex issues in the research and development of aerospace aircraft and next-generation robots that make full use of advanced systems technology, as well as in the advanced mechanical engineering and physical properties and materials science fields that support such research and development.

Who have the desire and ability to tackle complex issues in the fields of information engineering and electrical and electronic engineering related to that intelligence and information systems, electrical and telecommunications systems, and electronic device measurement, which create high-value social and engineering functions.

(4) Basic policy of screening

The Master's and Doctoral Programs of the Graduate School of Engineering will implement various admission methods in order to seek diverse and individualistic students, placing emphasis on the following in the selection of applicants.

1) Master's Program

- 1. have basic knowledge equivalent to a bachelor's degree in a specialized field
- 2. have a willingness to acquire advanced specialized knowledge and to work on finding and solving diverse problems
- 3. basic ability to gather and disseminate information in English.

2) Doctoral Program

- 1. have knowledge equivalent to a master's degree in a specialized field
- 2. have a desire to acquire in-depth and advanced specialized knowledge and to discover and solve diverse and complex problems.
- 3. ability to collect and disseminate information in English, as well as communication skills to collaborate widely.

Project base AI learning program utilizing the cooperation with private corporations (PBL-AI Program)

This program provides education and/or research through projects in which AI-technologies are used. In this program, a multidisciplinary and practical education is conducted with supports of private companies.

1. Number of Admissions

Division of Engineering

Course of Advanced Information and Electronic Engineering

| Number of Admissions | | | |
|-------------------------|-------|--|--|
| Selection A Selection B | | | |
| a few | a few | | |

Notes: Selection A is for those who have a nationality other than Japanese, and lives in a country other than Japan.

Selection B is for residents in Japan.

2. Admission period

The Admission period for this examination is April 2023 Select one of the admission periods when applying.

3. Eligibility for Application

For those to satisfy one of the following conditions.

- 1) The applicant must have a master's or professional degree in Japan or be a candidate for graduation with a master's or professional degree in Japan by March 2023.
- 2) The applicant must have a master's or professional degree other than Japan or be a candidate for graduation with a master's or professional degree other than Japan by March 2023.
- 3) The applicant must have a master's or professional degree with earned credits from a foreign correspondence course or be a candidate for graduation with a master's or professional degree in the same manner by March 2023.
- 4) The applicant must have a master's or professional degree from a foreign educational institution with a graduate degree specified by the Minister of Education, Culture, Sports, Science and Technology Japan, and be a candidate for graduation with a master's or professional degree from the same institution by March 2023.
- 5) The applicant who completed the course at the United Nations University, which was established in accordance with the United Nations General Assembly resolution of December 11, 1972, as set forth in Paragraph 2, Article 1 of the Act on Special Measures Incidental to Enforcement of the Agreement between the United Nations and Japan (Act No. 72 of 1976) regarding the Headquarters of the United Nations University, and were awarded or are expected to be awarded a degree equivalent to a master's degree by March 2023.
- 6) The applicant who completed a course at a school in a foreign country; a designated education institution satisfying the eligibility for application 4) above or the United Nations University; passed equivalents of a test and screening as set forth in Item 2, Article 16 of the graduate School Establishment Standards by March 2023; and have achievements equal to or higher than a master's degree recognized by the graduate school of Muroran Institute of Technology.

- 7) The applicant is recommended by the Minister of Education, Culture, Sports, Science and Technology - Japan. (Notification No.118 of the Ministry of Education, Culture, Sports, Science and Technology - Japan)
 - ① The applicant must be a university or college graduate, and have over two years' experience in a university or research institute by March 2023 and have achievements equal to or higher than a master's degree recognized by the graduate school of Muroran Institute of Technology.
 - ② The applicant must have completed at least 16 years of formal education outside Japan, or a foreign correspondence course in Japan, and have over two years' experience in a university or research institute by March 2023, and have achievements equal to or higher than a master's degree recognized by the graduate school of Muroran Institute of Technology.
- 8) The applicant has been recognized by the graduate school of Muroran Institute of Technology as being of equivalent status to a master's or professional degree and who will have reached the age of 24 by March 31, 2023.
- 9) The applicant must be a junior college, technical college, or a vocational school graduate, and who will have reached the age of 24 by March 31, 2023, and have experience in research or business in the science and technology field, and have achievements such as published books, technical papers, academic lectures, business results and patents equal to or higher than a master's degree recognized by the graduate school of Muroran Institute of Technology.

Notes: A preliminary examination to determine eligibility for application is necessary for those who want to make an application under the above 6),7),8) or 9), so they will need to complete the qualifying examination record (form specified by the graduate school of Muroran Institute of Technology). Attach a copy of any thesis and papers, as well as a copy of their graduation certificate. These documents must be sent to the Admission Office by September 30, 2022.

3 Preliminary consultation

If you are physically challenging and need special assistance for entrance examinations and/or school attendance, you must make a request to the Admission Office for extra care in advance. Please inform us of those above as soon as possible so that Muroran IT can consider for your request.

In addition, the Admission Office provides consultations for entrance examinations and school attendance throughout the year. You must also notify in advance if you use an acoustic aid, a wheelchair or other daily support tools in the same way.

4 Application Procedures

(1) Registration period:

Monday, October 24, 2022 $\,-\,$ Friday, November 4, 2022 (weekday only)

(2) Documents to be submitted

| Documents to be submitted | Remarks |
|---|---|
| (A)Application Form | All items should be completed in full. |
| (B)Photograph | The photograph of applicant with upper body facing front should be taken within 3 months of the date of application (size 4 cm X 3 cm). Paste it in the designated space. |
| (C)Certificate of graduation or certificate of expected graduation (Original or Certified Copy) | It must be on signature or seal by the president (or dean) of graduate school. Only applicants who have completed (or those who are expected to complete) a doctoral course (or master's course) or professional graduate school may submit a certificate of graduation or certificate of expected graduation. However, applicants who are submitting a certificate of expected graduation must submit a certificate of graduation prior to entrance to the Graduate School. |
| | (A certificate issued by a public agency with the same contents as the original is also acceptable.) |
| (D) Transcript (Original or Certified Copy) | Each one of official academic transcripts with seal or signature from the graduate school and the undergraduate school. (A certificate issued by a public agency with the same contents as the original is also acceptable.) |
| (E)Letter of recommendation (① and ②) | A paper of each letter from either the president of the university last attended, dean, supervisor of the graduate school, or a superior at work, and A paper of by a supervisor in charge from Muroran IT should be submitted. (No special form is provided.). |
| (F)Statement of reason for application | A paper stating the applicant's reason for applying to the doctoral course in Japanese (400 characters) or English (100 words). |
| (G) Research Plan | A paper stating the applicant's Research Plan in our doctoral course in Japanese or English. |

| (H) Photocopy of Master's thesis and its Summary | One copy of each of the following must be provided. A summary stating an outline of the applicant's master's thesis in Japanese (2000 characters) or English (500 words). In the case of an applicant who will graduate from a master's course by March 2022 / September 2022, a paper stating the subject of the applicant's master's thesis and its progress in Japanese (2000 characters) or English (500 words) must be provided. In the case of an applicant who received or will receive a professional degree by March 2022 / September 2022, a paper stating the outline of research progress in Japanese (2000 characters) or English (500 words) must be provided. | |
|---|--|--|
| (I) A Certificate of residence or a copy of a passport | Please submit a certificate of residence or a copy of your passport. | |
| | The fee should be paid by telegraphic transfer, a copy of the application for remittance should be enclosed in the application documents to be submitted. The details can be confirmed in (4) How to Pay for the Screening Fee below. | |
| (J) Screening fee (JPY 30,000) | [Students who have completed a master's course at Muroran IT and will continue on to the doctoral course] The screening fee is unnecessary | |
| (01 1 50,000) | [Japanese Government (Monbukagakusho) MEXT - sponsored foreign students] The screening fee is unnecessary Instead of the transfer payment certificate, a certificate of government-sponsored foreign student (free format) should be submitted (prepared by the school you are enrolled in.) | |

Notes: (i) The documents for above items (A), (F), and (G) should be written on the designated form of Muroran IT.

The formats of specified forms can be downloaded from the website

https://muroran-it.ac.jp/entrance/gsee/guidelines_is/

- (ii) All documents must be written in Japanese or English. If the original document is written in another language, a Japanese or English translation must be attached.
- (iii) For those applying according to 6),7), 8) or 9) on page 4-5, the documents from above items (C), (D) concerning their master's course, and (H) are not necessary.
- (iv) Incomplete application documents will not be accepted.
- (v) <u>Supervisors you desire may not be available due to retirement, etc., so confirm available supervisors in our official website below.</u>

https://muroran-it.ac.jp/uploads/sites/6/2022/07/supervisor_mc_202304.pdf

(vi) <u>Before going through application procedures, the applicant should seek the advice of</u> his or her desired Supervisor for the contents of education/study, etc.

(3) Submission of application documents

Admissions Department, Muroran Institute of Technology 27-1 Mizumoto-cho, Muroran, Hokkaido, Japan 050-8585

(4) How to Pay for the Screening Fee

- a. Remit the screening fee, JPY 30,000, so that we can receive it by the deadline of application, following the instructions below.
- b. Transfer the amount of the screening fee plus additional fees for remittance and yen exchange transaction, which are charged in your own country. (All additional fees shall be borne by applicants.)
- c. Enclose the copy of the application for remittance in the application documents.
 - Telegraphic Transfer
 - · Advise and Pay
 - · Bank Transfer Fee: Payer's Responsibility

| Bank account to be sent | | | |
|-------------------------|--|--|--|
| Bank | NORTH PACIFIC BANK,LTD | | |
| Branch | NAKAJIMACHO BRANCH | | |
| SWIFT code | NORPJPJP | | |
| Account No. | 3968548 | | |
| Account name | NATIONAL UNIVERSITY CORPORATION MURORAN INSTITUTE OF TECHNOLOGY | | |
| Screening fee | JPY 30,000 | | |

| Payment Periods | From Monday, October 17, 2022 to Monday, November 4, 2022 |
|-----------------|--|
|-----------------|--|

Notes: The applicant needs to transfer the total amount of the screening fee, remittance charge, and yen currency exchange transaction fee incurred in the applicant's country. (All bank charges shall be borne by the remitter including transaction charges of paying banks.)

(5) Points to keep in mind regarding the application procedures

(A) Except for the following reasons, the screening fee will not be returned:

In the case that the screening fee was paid, but no application documents were submitted nor received by Muroran IT, or in the case that the screening fee was paid in duplicate. In either of these cases, request for the return of the screening fee as soon as possible.

For questions regarding the return of the screening fee contact:

Admissions Department, Muroran Institute of Technology 27-1 Mizumoto-cho, Muroran, Hokkaido, Japan 050-8585 E-mail nyushi@mmm.muroran-it.ac.jp

- (B) The application will not be accepted if the screening fee has not been paid.
- (C) Notify the Admission Office by phone, fax, or email as soon as possible, if there are any changes to the contact information of the applicant.

5. Screening Procedures

(1) Screening of the Applicant

Selection A:

The screening will be done on the basis of the application documents submitted.

Selection B:

The screening will be done on the basis of an oral examination and the application documents submitted.

(2) Oral Examination

Selection B: From 10:00 a.m. on Saturday, November 19, 2022

6. Location of Examination

Muroran Institute of Technology: 27-1 Mizumoto-cho, Muroran, Hokkaido

Note: Information on test rooms will be posted on the day before the admission test on the message board on the first floor of Building N of Education and Research Building No. 3 as well as on the message board for each faculty. The same information will also be posted on the website of Muroran IT

7. Announcement of the Screening Result

10:00 a.m. on Friday, December 2, 2022.

The examination numbers of successful applicants will be posted on the first floor of Building N of Education and Research Building No. 3, as well as on the official Muroran IT website regarding screening results. In addition, a notice will be sent to all successful applicants by mail. Unsuccessful applicants will not be notified.

8. Enrollment Procedures

Procedures period:

Monday, January 23, 2023 — Monday, February 3, 2023 (Excluding Saturday and Sunday)

Applicants who have successfully passed the screening should prepare the necessary documents, and enrollment procedures during the dates listed above. Detailed information about the necessary documents, as well as the amount and payment method of the entrance fee and tuition fees, will be included in the enrollment information to be sent after the announcement of the successful candidates.

Entrance fee

JPY 282,000 [Expected amount]

Tuition fee (Reference)

1st Term JPY 267,900 [Expected amount] 2nd Term JPY 267,900 [Expected amount]

(Yearly total JPY 535,800 【Expected amount】 to be paid in two installments in May and November.)

Note: Entrance fee and Tuition fee are not required for Japanese Government -sponsored foreign students.

9. Information about Muroran IT

- (1) Muroran Institute of Technology is a national institute.
- (2) The Doctor's course is a three-year course after finishing a Master's Course. The degree will be awarded to those who have earned the required credits, submitted a research thesis and passed the oral defense of the thesis.
- (3) Dormitory for Foreign Students: A limited number of students are permitted upon selection by Muroran IT to live there for one year only, if space is available.

10. The Exemption and Postponement of the Entrance Fee and Tuition Fee

- (1) The exemption of the entrance fee will be approved for:

 Those who are admitted to our Graduate School, and for whom it is difficult to pay the entrance fee, and those whose academic performance is judged excellent.
- (2) Postponement of the entrance fee will be approved for:

 Those who are admitted to our Graduate School, and for whom it is difficult to pay the entrance fee within the admission period, and whose academic performance is judged excellent.
- (3) Those whose application form for the exemption and postponement has been accepted do not need to pay, until its approval or non-approval has been decided. If the applicant pays the fee before the decision, their application for the exemption or postponement is nullified.
- (4) The exemption and postponement of the tuition fee Students will be informed and advised in detail regarding exemption and postponement of the tuition fee in documents related to admissions.
- (5) If applying for the program of entrance fee waiver or postponement, and then declining admission after completing the admission procedures, the application for the program shall not be approved, and the entrance fee shall be paid.

Request for Documents and Queries Concerning the Exemption and Postponement of the Entrance Fee and Tuition Fee should be addressed to:

Student Support Section, Academic Affairs Department, Muroran Institute of Technology 27-1 Mizumoto-cho, Muroran, Hokkaido, Japan 050-8585 E-mail kousei@mmm.muroran-it.ac.jp Office Hour:8:30-12:00, 13:00-17:15 (Weekdays only)

室蘭工業大学 大学院工学研究科 博士後期課程

受験番号

この欄には可も記入しないこと

PBL-AI Program 入試入学志願票

APPLICATION FORM FOR ADMISSION (PBL-AI Program)
THE DOCTORAL COURSE OF MURORAN INSTITUTE OF TECHNOLOGY

写 真 2023 年度 4 月入学 DATE OF ENTRANCE: April, 2023 □A選抜 Category A 3 か月以内に撮影 □B選抜 Category B した上半身脱帽正 面向きの写真を貼 *Add check-mark either selection ること。 Photo $3cm \times 4cm$ taken within 3 months 1. 氏名 Name in Full:_____ First , Middle , Last (Family) In Roman Letter: 2. 国籍 Nationality: 3. 性別 Sex: □男 Male □女 Female 4. 生年月日 Date of Birth:___ 5. 年齢 Age: (Month) (Day) (Year) 6. 志望コース Course you apply for: Course of Advanced Information and Electronic Engineering 7. 指導教員名 Name of Supervisor:__ 注: 出願手続をする前に、あらかじめ希望指導教員に相談すること。 Note: Before going through application procedures, the applicant should seek the advice of supervisor. 8. 出身地 Place of Birth: 9. 現住所(自宅):_____ Current Address Phone: E-mail: 10. 入学試験・手続等に関する連絡先 Contact Regarding Entrance Examination and Procedures Address:

11. 学歴 Educational Background

注:通学したすべての学校(小学校相当以上)を年代順に記入すること。

Note: List, in chronological order, all the schools(above elementary school) you attended.

| 学 校 名 Name of school | 修業年数 Number of years attended | 在学期間 Period of Attendance (year/month ~ year/month) | 学 位 Degree |
|-------------------------|-------------------------------------|---|---------------|
| | 年 years | / ~ / | |
| | 年 years | / ~ / | |
| | 年 years | / ~ / | |
| | 年 years | / ~ / | |

| 12. | 職歴 | Emp1 | oyment | Record |
|-----|----|------|--------|--------|
| | | | | |

| 12. Marie and 10. | | |
|-----------------------------|----------|----------------------|
| 職場名 | 所 在 地 | 勤 続 期 間 |
| Name of Company or Employer | Location | Period of Employment |
| | | From |
| | | to |
| | | From |
| | | to |
| | | From |
| | | to |

13. 日本語の知識 Proficiency in Japanese Language ※only foreign students

| | • | | , | |
|----------|------------|-------|-------|-------|
| 解読力 | 優 | 良 | 可 | 不可 |
| Reading | □Excellent | □Good | □Fair | □Poor |
| 会話力 | 優 | 良 | 可 | 不可 |
| Speaking | □Excellent | □Good | □Fair | □Poor |
| 筆記力 | 優 | 良 | 可 | 不可 |
| Writing | □Excellent | □Good | □Fair | □Poor |

日本語の学習歴 Japanese Language Background, if any

| 学 習 機 関 名 | 所 在 地 | 学 習 期 間 |
|---------------------|----------|-----------------|
| Name of Institution | Location | Period of Study |
| | | From |
| | | То |
| | | From |
| | | То |

14. 外国語の知識 Proficiency in Foreign Language

| English | 優 □Excellent | 良 □Good | 可 □Fair | 不可 □Poor |
|---------|-----------------|------------|------------|-------------|
| French | □Excellent | □Good | □Fair | □Poor |
| German | □Excellent | □Good | □Fair | □Poor |
| Spanish | □Excellent | □Good | □Fair | □Poor |
| Other (| □Excellent | □Good | □Fair | □Poor |

研究(希望)計画書

RESEARCH PLAN

受験番号

PBL-AI Program 入試(Admission of PBL-AI Program)

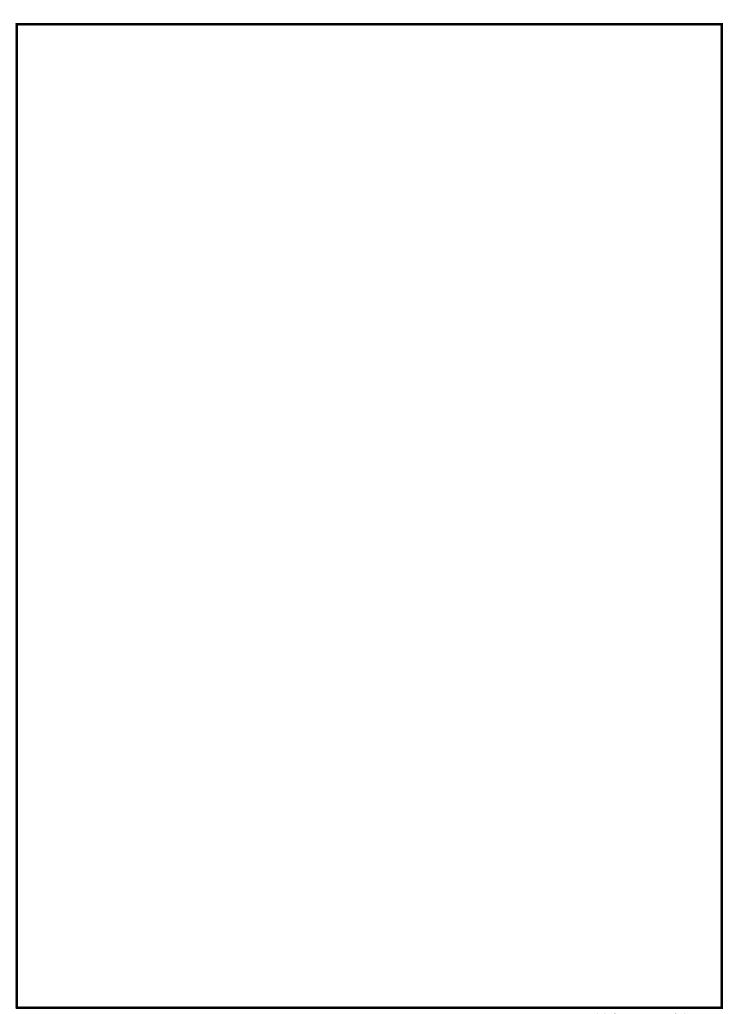
2023 年度 4 月入学 DATE OF ENTRANCE: April, 2023

| □A選抜 | Category A |
|----------|--------------------------|
| □B選抜 | Category B |
| *Add che | ck-mark either selection |

以下の a~g について順を追って記述すること。(Prepare a document in order of a to g)

- a. 研究のタイトル (Research subject)
- b. これまでの研究の背景と解決するべき課題(Research background and issue to be dissolved)
- c. 課題解決の方法と特色, 独創性 (Originality of research)
- d. この研究の波及効果(Expected results and impacts)
- e. DC コースでの研究目的及び研究計画(Objectives and research outline)
- f. 年次計画内容の詳細(Details of your research plan for each academic year)
- g. 投稿を目指す論文雑誌名(The journal you intend to submit)

| 氏名(Name in Full) | |
|-----------------------------|---|
| 志望コース(Course you apply for) | Course of Advanced Information and Electronic Engineering |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |



Form F

志望理由書

STATEMENT OF REASON FOR APPLICATION

2023 年度 4 月入学 DATE OF ENTRANCE: April, 2023

受験 この欄にお可も記入しないこと 番号

| □A選抜 | Category A |
|----------|--------------------------|
| □B選抜 | Category B |
| *Add che | ck-mark either selection |

| 氏名 (Name in Full) | |
|------------------------|---|
| 志望コース | Course of Advanced Information and Electronic Engineering |
| (Course you apply for) | Course of havaneed information and breetronic busineering |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |