#### **Doctoral Courses**

2023 October (Fall) Admission 2024 April (Spring) Admission Affiliated School Recommendation

# Application Guidelines

# **Application Period:**

2023 October (Fall) Admission June 15, 2023 — June 21, 2023

2024 April (Spring) Admission October 12, 2023 — October 18, 2023

Akita University
Graduate School of Engineering Science

https://www.riko.akita-u.ac.jp/

# Doctoral Courses 2023 October (Fall) Admission Affiliated School Recommendation

# Graduate School of Engineering Science Akita University

# **Application Guidelines**

The Doctoral Courses are offered by Akita University Graduate School of Engineering Science to exchange students having a recommendation from one of Akita University's overseas affiliated schools, and who are either currently enrolled or have graduated from it. These cources provide the students with the opportunity to obtain a Doctor's Degree in either Science, Engineering Science or Engineering.

The Akita University's overseas affiliated schools list is posted on our website.

#### 1. Number to be Admitted

| Field  | Fall  |
|--|-------|
| Life Science   | a few |
| Materials Science  | a few |
| Mathematical Science and Electrical-Electronic-Computer<br>Engineering | a few |
| Systems Design Engineering   | a few |

#### 2. Application Qualifications

- · The status of residence of a incoming student must be "College Student."
- · Applicants must have received higher education in the field of their desired major and meet all academic requirements. They need to be people of integrity and must be recommended by the president of an affiliated school or the dean of the graduate school (or the dean of the faculty) attended. One of the three qualifications below must also be satisfied and enrollment at Akita University must also be promised once the candidate is accepted.
  - (1) Either have already obtained a Master's Degree or its equivalent or will be able to receive it by the end of September, 2023.
  - (2) Have, upon graduation from a college, engaged in research no less than 2 years at an affiliated university or its research institute, and have also been recognized by the Graduate School of Akita University as having an academic level equivalent to or higher than a Master's Degree based on the results of said research.
  - (3) Be 24 years of age or older on September 30, 2023, and be recognized to have an academic level that is equivalent to or higher than a Master's Degree after the Individual Application

Qualification Evaluation conducted by the Graduate School of Akita University (Applicant must have engaged in work no less than 2 years upon graduation from an affiliated university in such fields as science or engineering. Applicant must also have been acknowledged by the Graduate School of Akita University to have achieved the academic equivalent of a Master's Degree thesis or higher in such forms as books, papers, presentations, reports, or patents.)

#### Note:

- a) Applicants who are accepted based on the qualifications above, yet are confirmed as not being able to complete the admission procedures by the deadline will not be admitted. Details on admission procedures will be sent to all accepted students along with a Letter of Acceptance.
- b) Applicants applying under requirements (2) or (3) of the Application Qualifications must submit the following documents to the Admissions Office of the Graduate School of Akita University for Pre-evaluation of Application Qualification. The request will be accepted starting on May 15, 2023, and no later than May 19, 2023 ① Pre-evaluation Request for Application Qualification, ② Academic Record for Approval of Application Qualification, ③ Record of Academic Achievements (forms ①-③ attached herein), ④ Proof of Graduation/Completion, and ⑤ copies of published papers
- c) Applicants will be notified of the Application Qualification Pre-evaluation results no later than June 5, 2023.

#### 3. Application Period and Mailing Address

(1) Application Period:

From June 15, 2023 to no later than June 21, 2023.

- 1) If brought in person or by proxy, application documents will be accepted at the Admissions Office between 9:00 a.m. and 4:00 p.m.
- 2) If mailed, application documents must be sent by registered mail. "Application to Doctoral Course (Recommendation), Graduate School of Engineering Science" must appear in red on the front side of the envelope. The documents must reach the Admissions Office no later than 4:00 p.m. on June 21, 2023. Special attention should be paid in estimating the days needed for overseas delivery.
- (2) Mailing address:

Admissions Office Akita University 1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan

Tel: +81-18-889-2313

E-mail: nyushi@jimu.akita-u.ac.jp

## 4. Application Procedures

#### (1) Documents to be submitted

#### 1 Letter of Recommendation

Recommendations must be written by the applicant's supervising instructor at the affiliated school where applicant is either currently attending or where graduated from, and must be issued by the president of the school or the dean of the graduate school.

#### 2 Application for Admission

Requested information must be entered on the designated form (attached herein).

#### ③ ID Photo Card

A frontal-view photograph of the applicant's face, without a hat, 4.5 cm x 3.5 cm in size and taken within three months prior to the application must be pasted in the designated area for the ID photo Card (attached herein).

#### 4 Certificate of Completion or Prospective Completion or Certificate of Graduation

Applicants who, either have or will be able to get a Master's Degree must submit a certificate of either completion or prospective completion of the Master's Course issued by the university or the graduate school last attended. Applicants having completed undergraduate work only, must submit a graduation certificate issued by the university or the faculty last attended.

#### **5** Academic Record Transcripts

Official transcripts in a sealed envelope from the university or the faculty attended must be submitted.

#### 6 Abstract of Master's Thesis

An abstract must be written on the form (attached herein) using 500 or less words. In the case of an applicant with a prospective completion of a Master's Course, the title of the Master's Thesis and an outline of the research process must be entered on the form. If papers, academic presentations, or patent licenses are available in print, a copy of such should also be enclosed.

(Not needed if applying under requirements (2) or (3) of the Application Qualifications.)

#### 7 Research Plan

The desired field or topics for study must be explained in the outline of the research plan on the form (attached herein) in 300 or less words upon consultation with the supervising professor whom the applicant wishes to study under.

#### 8 Record of Academic Achievements

Books, papers, academic presentations, patents, practical new designs, or other specific activities in academic societies or within the community, are to be explained on the form (attached herein).

#### Proof of Evaluation Fee Payment

The amount of the evaluation fee is 30,000 JPY.

When depositing from an overseas bank, please make sure that the fee is sent by a telegraphic transfer to the bank account below in JPY. Payment made by other currency will not be accepted. Any cost for the transfer is to be paid by the applicant. Please enclose a copy of "Application for Remittance" when mailing the admission application documents.

- 1. Amount: 30,000 JPY (The fee must be remitted in JPY)
- 2. Remittance method: telegraphic transfer
- 3. Remittance fee: to be paid by the applicants
- 4. Remittance period:May 25, 2023 June 21, 2023 (in JST)
- 5. Remittance Information:

Bank Name: Akita Bank, Ltd.

Branch: Tegata Branch

Address: 160-1, Aza-Yamazaki, Tegata, Akita City, Akita, 010-0851 Japan

Account Number: 688502 Recipient: Akita University

Bank Identifier Code(SWIFT): AKITJPJT

#### Note:

- a) When filling out the "Application for Remittance," please indicate "Purpose of Remittance" as "evaluation fee", as well as indicate "applicant's name" in the message box.
- b) After remitting the evaluation fee, please email the address of Admissions Office as soon as possible.
- c) In case of remitting the evaluation fee from within Japan, please email the address of Admissions Office before remitting the fee.

Admissions Office will give instructions to you.

Please don't remit the fee before receiving instructions.

d) In case the evaluation fee remitted does not meet the required amount of 30,000 JPY for any reason, the application procedure cannot be completed and accordingly the application will not be accepted. In that case, the evaluation fee will be returned to the applicant with our remittance fee being deducted from the amount of the evaluation fee.

#### (10) Others

- · Applicants who live in Japan and do not have Japanese citizenship must submit a certified copy of Alien Registration issued by the municipality where they reside.
- · Applicants residing overseas must submit an authorized certificate of his/her family register or proof of citizenship in home country.

#### Note: Important notices for submitting documents

a) Certificate of Graduation/Completion is not required if applying under requirements (2) or (3) of the Application Qualifications.

- b) No application will be accepted unless all documents mentioned above are fully and accurately completed.
- c) Once submitted, documents will not be returned to applicants for any reason.
- d) Applicants are not allowed to change fields after submission of application.
- e) If Contact Address entered in the application form changes after submission, the Admissions Office must be promptly notified of such change.
  - E-mail: nyushi@jimu.akita-u.ac.jp
- f) Attached forms may be either hand-written or typed.

## 5. Evaluation of Applicants

Screening for admission will be conducted based on analysis of all documents submitted.

#### 6. Pre-consultation for Disabled Applicants

As a preliminary step in the application process, disabled applicants (refer to the chart below) who need special consideration during either the application process or the course itself must submit a document detailing the items listed below (form not designated) together with a medical certificate prepared by a doctor no later than May 19, 2023. Early consultation is recommended since advance preparation may be needed in cases of severe disability.

- ① Name, age, contact address, telephone number, and desired department(major).
- ② Type and degree of disability.
- ③ Detailed explanation of care needed during application and course study.
- 4 Special preparation and care taken at the university last attended.
- 5 Description of everyday life.
- 6 Name, address, and telephone number of the university last attended.

If needs arise after the deadline of May 19, 2023 due to accident or other contingency, please contact the Admissions Office immediately.

| Type of Disability | Extent of Disability  |
|--------------------|---|
| Visual             | Those who are with eyesight of less than 0.3 with both eyes (Universal Eyesight Test Chart) or who have ophthalmologic functional disorders that do not allow easy recognition of normal size letters or diagrams, even with the use of a magnifying glass.                                       |
| Hearing            | Those who are with an auditory capacity of more than 60 decibels (Audiometer testing) who have difficulty listening to normal talking even with a hearing aid.  |
| Physical           | <ol> <li>Those who are not capable of performing basic daily tasks such as walking or writing even with the use of orthopedic or prosthetic devices.</li> <li>Those with physical disabilities not as severe as the above but who need constant medical assistance and/or observation.</li> </ol> |

| Health | <ol> <li>Those who are under constant medical restrictions due to prolonged chronic respiratory, kidney, nervous system illness, malignant growth, or other disorder.</li> <li>Those placed under medical restrictions due to prolonged weak or feeble health.</li> </ol> |
|--------|---|
| Other  | Those who are not specifically mentioned above, yet require special consideration when either applying for admission or attending classes during the course of study.   |

Translated from the original by the Graduate School of Akita University.

#### Note:

- a) The above are in conformity with Article 22-3 of the School Education Law Enforcement Regulations.
- b) Advance contact is also requested if the applicant uses a hearing aid, crutches, or a wheelchair on an everyday basis.

#### 7. Acceptance Notification

Results are tentatively scheduled to be e-mailed to all applicants at 3:00 p.m on July 18, 2023.

Therefore telephone inquiries will not be honored. A letter of Acceptance will be sent to a successful applicant.

## 8. Promise of Enrollment

Accepted students must submit the Promise of Enrollment upon receipt of the Letter of Acceptance (a form enclosed with the Letter of Acceptance) to the Admissions Office no later than August 18, 2023. If this Promise is not received by the deadline, it will be understood that enrollment will not take place.

#### 9. Admission Procedures

- (1) Details for Admission Procedures will be sent to all who are accepted along with the Letter of Acceptance. Accepted students are strongly advised to come to Japan in time to complete the Admission Procedures in person.
- (2) School Fees (must be paid in Japanese currency)
  - 1 Admission fee: 282,000 JPY (subject to change)
  - 2 Tuition: 267,900 JPY for the first semester (535,800 JPY for the first academic year) (subject to change)

#### Note:

- a) Admission fee paid will be not refunded for any reason.
- b) The above school fees are projected amounts and are subject to change before or during the course. Revised admission fee will apply to all new students if the revision takes place before the end of the Admission Procedure Period. If the tuition is revised at the time of

admission or during the course, the new tuition takes effect at the time of revision.

c) If a candidate cancels one's admission before September 29, 2023 after completion of the Admission Procedures due to unavoidable circumstances, the tuition paid may be refunded upon the payer's request only after designated procedures are completed.

#### (3) Other information

- 1) Those with an excellent academic standing yet who have difficulty with paying the admission fee due to financial circumstances and those who demonstrate other financial needs may be eligible upon screening to apply for financial aid. Those accepted will be either exempt from paying all or half of the admission fee, or may be all owed to pay the fee at a later date.
- 2) Those with an excellent academic standing yet who have difficulty with paying the tuition due to financial circumstances and those who demonstrate other financial needs may be eligible upon screening to apply for financial aid. Those accepted will be either exempt from paying all, half or a third of the tuition, or may be allowed to pay the fee at a later date.

Admissions Office Akita University 1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan

Tel.: +81-18-889-2313

E-mail: nyushi@jimu.akita-u.ac.jp

#### 10. Obtaining a Visa

The first step in obtaining a visa is to apply for a Certificate of Eligibility at the Ministry of Justice, Immigration Bureau in Japan. On behalf of students who reside overseas, who have been accepted after the evaluation, and who are confirmed to have completed all the admission procedure requirements, Akita University will apply for the Certificate of Eligibility upon the request of the student. Upon receipt of the Certificate of Eligibility from the Immigration Bureau, Akita University will then mail it to the student's address. The student is to submit their passport and the certificate to a Japanese diplomatic office (Japanese Embassy or Japanese Consulate) in their home country. A visa will be issued approximately one week after submitting the above documents.

#### Note:

- a) Akita University International Exchange Center (hereafter referred to as the International Exchange Center) will request the residential status of "College Student" when applying for the Certificate of Eligibility upon the request of the student.
- b) Admission may be turned down by the student under unavoidable circumstances, but the student will be required to send the Certificate of Eligibility immediately back to the

- International Exchange Center along with a letter stating the reason for the cancellation.
- c) To ensure a prompt application process, applicants who commission the International Exchange Center to apply for the Certificate of Eligibility must make sure that all documents (explained below) are completely filled out and are submitted at the time of applying for the course. However, the immigration office may find it necessary to request additional documents.

Flow chart on how the college student visa is obtained:

① Submission of documents necessary for Certificate of Eligibility at the time of application for the course

(applicant → International Exchange Center)

- ② Completion of admission procedures after having been accepted (accepted student → Admissions Office)
- ③ Application for Certificate of Eligibility
   (International Exchange Center → Sendai Regional Immigration Bureau)
- ④ Issuance of Certificate of Eligibility
   (Sendai Regional Immigration Bureau → International Exchange Center)
- ⑤ Mailing of Certificate of Eligibility
   (International Exchange Center → accepted students)
- ⑥ Applying and obtaining of college student visa in the students' home country.
   (accepted student → Japanese Embassy or Japanese Consulate)
- 7 Entry into Japan under college student status

# **Application Documents for Certificate of Eligibility**

\* Designated forms are available.

|       |               | Documents         | No.of copies  | Notes   |
|-------|---------------|-------------------|---|---|
|       |               | Application for   |   | Application forms and instructions are found at the Ministry of |
| *     | (1)           | Certificate of    | 1   | Justice website   |
|       |               | Eligibility       |   |   |
|       |               | Photo             |   | The same photo used on the application form for the course      |
| * (2) | (40mm x 30mm) | 1                 | must be pasted on the designated place of the Application for |   |
|       |               |                   | Certificate of Eligibility form.                              |   |
|       |               | Copy of           |   | All the pages where the applicant's information is entered must |
|       | (3)           | passport          | 1   | be photocopied and submitted.                                   |
|       |               | (if issued)       |   |   |
|       | (4)           | Bank statement    | 1   | Please submit a certificate for everyone if there are multiple  |
|       | (4)           | of your supporter | 1   | financial sponsors.   |

For any questions about a certificate of eligibility:

Akita University International Exchange Center 1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan

Tel.: +81-18-889-2258

E-mail: ryugaku@jimu.akita-u.ac.jp

#### 11. Other Notes

Akita University has established the university's Rules on Security Export Control in accordance with the Foreign Exchange and Foreign Trade Act, and conducts strict examinations for acceptance of international students, etc. Therefore, please be advised that international applicants may be unable to receive their desired education or conduct their desired research due to the restriction by the above regulations.

# Doctoral Courses 2024 April (Spring) Admission Affiliated School Recommendation

# Graduate School of Engineering Science Akita University

# **Application Guidelines**

The Doctoral Courses are offered by Akita University Graduate School of Engineering Science to exchange students having a recommendation from one of Akita University's overseas affiliated schools, and who are either currently enrolled or have graduated from it. These cources provide the students with the opportunity to obtain a Doctor's Degree in either Science, Engineering Science or Engineering.

The Akita University's overseas affiliated schools list is posted on our website.

#### 1. Number to be Admitted

| Field  | Spring |
|--|--------|
| Life Science   | a few  |
| Materials Science  | a few  |
| Mathematical Science and Electrical-Electronic-Computer<br>Engineering | a few  |
| Systems Design Engineering   | a few  |

#### 2. Application Qualifications

- · The status of residence of a incoming student must be "College Student."
- · Applicants must have received higher education in the field of their desired major and meet all academic requirements. They need to be people of integrity and must be recommended by the president of an affiliated school or the dean of the graduate school (or the dean of the faculty) attended. One of the three qualifications below must also be satisfied and enrollment at Akita University must also be promised once the candidate is accepted.
  - (1) Either have already obtained a Master's Degree or its equivalent or will be able to receive it by the end of March, 2024.
  - (2) Have, upon graduation from a college, engaged in research no less than 2 years at an affiliated university or its research institute, and have also been recognized by the Graduate School of Akita University as having an academic level equivalent to or higher than a Master's Degree based on the results of said research.
  - (3) Be 24 years of age or older on March 31, 2024, and be recognized to have an academic level that is equivalent to or higher than a Master's Degree after the Individual Application

Qualification Evaluation conducted by the Graduate School of Akita University (Applicant must have engaged in work no less than 2 years upon graduation from an affiliated university in such fields as science or engineering. Applicant must also have been acknowledged by the Graduate School of Akita University to have achieved the academic equivalent of a Master's Degree thesis or higher in such forms as books, papers, presentations, reports, or patents.)

#### Note:

- a) Applicants who are accepted based on the qualifications above, yet are confirmed as not being able to complete the admission procedures by the deadline will not be admitted. Details on admission procedures will be sent to all accepted students along with a Letter of Acceptance.
- b) Applicants applying under requirements (2) or (3) of the Application Qualifications must submit the following documents to the Admissions Office of the Graduate School of Akita University for Pre-evaluation of Application Qualification. The request will be accepted starting on September 15, 2023, and no later than September 21, 2023 ① Pre-evaluation Request for Application Qualification, ② Academic Record for Approval of Application Qualification, ③ Record of Academic Achievements (forms ①-③ attached herein), ④ Proof of Graduation/Completion, and ⑤ copies of published papers
- c) Applicants will be notified of the Application Qualification Pre-evaluation results no later than October 10, 2023.

## 3. Application Period and Mailing Address

(1) Application Period:

From October 12, 2023 to no later than October 18, 2023.

- 1) If brought in person or by proxy, application documents will be accepted at the Admissions Office between 9:00 a.m. and 4:00 p.m.
- 2) If mailed, application documents must be sent by registered mail. "Application to Doctoral Course (Recommendation), Graduate School of Engineering Science" must appear in red on the front side of the envelope. The documents must reach the Admissions Office no later than 4:00 p.m. on October 18, 2023. Special attention should be paid in estimating the days needed for overseas delivery.
- (2) Mailing address:

Admissions Office Akita University 1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan

Tel: +81-18-889-2313

E-mail: nyushi@jimu.akita-u.ac.jp

## 4. Application Procedures

#### (1) Documents to be submitted

#### 1 Letter of Recommendation

Recommendations must be written by the applicant's supervising instructor at the affiliated school where applicant is either currently attending or where graduated from, and must be issued by the president of the school or the dean of the graduate school.

#### 2 Application for Admission

Requested information must be entered on the designated form (attached herein).

#### ③ ID Photo Card

A frontal-view photograph of the applicant's face, without a hat, 4.5 cm x 3.5 cm in size and taken within three months prior to the application must be pasted in the designated area for the ID photo Card (attached herein).

#### 4 Certificate of Completion or Prospective Completion or Certificate of Graduation

Applicants who, either have or will be able to get a Master's Degree must submit a certificate of either completion or prospective completion of the Master's Course issued by the university or the graduate school last attended. Applicants having completed undergraduate work only, must submit a graduation certificate issued by the university or the faculty last attended.

#### **5** Academic Record Transcripts

Official transcripts in a sealed envelope from the university or the faculty attended must be submitted.

#### 6 Abstract of Master's Thesis

An abstract must be written on the form (attached herein) using 500 or less words. In the case of an applicant with a prospective completion of a Master's Course, the title of the Master's Thesis and an outline of the research process must be entered on the form. If papers, academic presentations, or patent licenses are available in print, a copy of such should also be enclosed.

(Not needed if applying under requirements (2) or (3) of the Application Qualifications.)

#### 7 Research Plan

The desired field or topics for study must be explained in the outline of the research plan on the form (attached herein) in 300 or less words upon consultation with the supervising professor whom the applicant wishes to study under.

#### 8 Record of Academic Achievements

Books, papers, academic presentations, patents, practical new designs, or other specific activities in academic societies or within the community, are to be explained on the form (attached herein).

#### Proof of Evaluation Fee Payment

The amount of the evaluation fee is 30,000 JPY.

When depositing from an overseas bank, please make sure that the fee is sent by a telegraphic transfer to the bank account below in JPY. Payment made by other currency will not be accepted. Any cost for the transfer is to be paid by the applicant.

Please enclose a copy of "Application for Remittance" when mailing the admission application documents.

- 1. Amount: 30,000 JPY (The fee must be remitted in JPY)
- 2. Remittance method: telegraphic transfer
- 3. Remittance fee: to be paid by the applicants
- 4. Remittance period: October 1, 2023 October 18, 2023 (in JST)
- 5. Remittance Information:

Bank Name: Akita Bank, Ltd.

Branch: Tegata Branch

Address: 160-1, Aza-Yamazaki, Tegata, Akita City, Akita, 010-0851 Japan

Account Number: 688502

Recipient: Akita University

Bank Identifier Code (SWIFT) : AKITJPJT

#### Note:

- a) When filling out the "Application for Remittance," please indicate "Purpose of Remittance" as "evaluation fee", as well as indicate "applicant's name" in the message box.
- b) After remitting the evaluation fee, please email the address of Admissions Office as soon as possible.
- c) In case of remitting the evaluation fee from within Japan, please email the address of Admissions Office before remitting the fee.

Admissions Office will give instructions to you.

Please don't remit the fee before receiving instructions.

d) In case the evaluation fee remitted does not meet the required amount of 30,000 JPY for any reason, the application procedure cannot be completed and accordingly the application will not be accepted. In that case, the evaluation fee will be returned to the applicant with our remittance fee being deducted from the amount of the evaluation fee.

#### ① Others

- · Applicants who live in Japan and do not have Japanese citizenship must submit a certified copy of Alien Registration issued by the municipality where they reside.
- · Applicants residing overseas must submit an authorized certificate of their family register or proof of citizenship in home country.

#### Note: Important notices for submitting documents

- a) Certificate of Graduation/Completion is not required if applying under requirements (2) or (3) of the Application Qualifications.
- b) No application will be accepted unless all documents mentioned above are fully and accurately completed.
- c) Once submitted, documents will not be returned to applicants for any reason.
- d) Applicants are not allowed to change fields after submission of application.
- e) If Contact Address entered in the application form changes after submission, the Admissions Office must be promptly notified of such change.
  - E-mail: nyushi@jimu.akita-u.ac.jp
- f) Attached forms may be either hand-written or typed.

## 5. Evaluation of Applicants

Screening for admission will be conducted based on analysis of all documents submitted.

#### 6. Pre-consultation for Disabled Applicants

As a preliminary step in the application process, disabled applicants (refer to the chart below) who need special consideration during either the application process or the course itself must submit a document detailing the items listed below (form not designated) together with a medical certificate prepared by a doctor no later than September 21, 2023. Early consultation is recommended since advance preparation may be needed in cases of severe disability.

- ① Name, age, contact address, telephone number, and desired department(major).
- 2 Type and degree of disability.
- ③ Detailed explanation of care needed during application and course study.
- 4 Special preparation and care taken at the university last attended.
- 5 Description of everyday life.
- 6 Name, address, and telephone number of the university last attended.

If needs arise after the deadline of September 21, 2023 due to accident or other contingency, please contact the Admissions Office immediately.

| Type of Disability | Extent of Disability  |
|--------------------|---|
| Visual             | Those who are with eyesight of less than 0.3 with both eyes (Universal Eyesight Test Chart) or who have ophthalmologic functional disorders that do not allow easy recognition of normal size letters or diagrams, even with the use of a magnifying glass.                                       |
| Hearing            | Those who are with an auditory capacity of more than 60 decibels (Audiometer testing) who have difficulty listening to normal talking even with a hearing aid.  |
| Physical           | <ol> <li>Those who are not capable of performing basic daily tasks such as walking or writing even with the use of orthopedic or prosthetic devices.</li> <li>Those with physical disabilities not as severe as the above but who need constant medical assistance and/or observation.</li> </ol> |

| Health | <ol> <li>Those who are under constant medical restrictions due to prolonged chronic respiratory, kidney, nervous system illness, malignant growth, or other disorder.</li> <li>Those placed under medical restrictions due to prolonged weak or feeble health.</li> </ol> |
|--------|---|
| Other  | Those who are not specifically mentioned above, yet require special consideration when either applying for admission or attending classes during the course of study.   |

Translated from the original by the Graduate School of Akita University.

#### Note:

- a) The above are in conformity with Article 22-3 of the School Education Law Enforcement Regulations.
- b) The above requested information (items ①-⑥) are also requested if the applicant uses, on an everyday basis, such common tools as a hearing aid, crutches, or a wheelchair.

#### 7. Acceptance Notification

Results are tentatively scheduled to be e-mailed to all applicants at 3:00 p.m on November 13, 2023.

Therefore telephone inquiries will not be honored. A letter of Acceptance will be sent to a successful applicant.

#### 8. Promise of Enrollment

Accepted students must submit the Promise of Enrollment upon receipt of the Letter of Acceptance (a form enclosed with the Letter of Acceptance) to the Admissions Office no later than December 13, 2023. If this Promise is not received by the deadline, it will be understood that enrollment will not take place.

#### 9. Admission Procedures

- (1) Details for Admission Procedures will be sent to all who are accepted along with the Letter of Acceptance. Accepted students are strongly advised to come to Japan in time to complete the Admission Procedures in person.
- (2) School Fees (must be paid in Japanese currency)
  - ① Admission fee: 282,000 JPY (subject to change)
  - 2 Tuition: 267,900 JPY for the first semester (535,800 JPY for the first academic year) (subject to change)

#### Note:

- a) Admission fee paid will be not refunded for any reason.
- b) The above school fees are projected amounts and are subject to change before or during the course. Revised admission fee will apply to all new students if the revision takes place before the end of the Admission Procedure Period. If the tuition is revised at the time of

admission or during the course, the new tuition takes effect at the time of revision.

c) If a candidate cancels one's admission before March 31, 2024 after completion of the Admission Procedures due to unavoidable circumstances, the tuition paid may be refunded upon the payer's request only after designated procedures are completed.

#### (3) Other information

- 1) Those with an excellent academic standing yet who have difficulty with paying the admission fee due to financial circumstances and those who demonstrate other financial needs may be eligible upon screening to apply for financial aid. Those accepted will be either exempt from paying all or half of the admission fee, or may be all owed to pay the fee at a later date.
- 2) Those with an excellent academic standing yet who have difficulty with paying the tuition due to financial circumstances and those who demonstrate other financial needs may be eligible upon screening to apply for financial aid. Those accepted will be either exempt from paying all, half or a third of the tuition, or may be allowed to pay the fee at a later date.

Admissions Office Akita University 1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan

Tel.: +81-18-889-2313

E-mail: nyushi@jimu.akita-u.ac.jp

#### 10. Obtaining a Visa

The first step in obtaining a visa is to apply for a Certificate of Eligibility at the Ministry of Justice, Immigration Bureau in Japan. On behalf of these students who reside overseas, who have been accepted after the evaluation, and who are confirmed to have completed all the admission procedure requirements, Akita University will apply for the Certificate of Eligibility upon the request of the student. Upon receipt of the Certificate of Eligibility from the Immigration Bureau, Akita University will then mail it to the student's address. The student is to submit their passport and the certificate to a Japanese diplomatic office (Japanese Embassy or Japanese Consulate) in their home country. A visa will be issued approximately one week after submitting the above documents.

#### Note:

- a) Akita University International Exchange Center (hereafter referred to as International Exchange Center) will request the residential status of "College Student" when applying for the Certificate of Eligibility upon the request of the student.
- b) Admission may be turned down by the student under unavoidable circumstances, but the student will be required to send the Certificate of Eligibility immediately back to the International Exchange Center along with a letter stating the reason for the cancellation.

c) To ensure a prompt application process, applicants who commission the International Exchange Center to apply for the Certificate of Eligibility must make sure that all documents (explained below) are completely filled out and are submitted at the time of applying for the course. However, the immigration office may find it necessary to request additional documents.

Flow chart on how the college student visa is obtained:

① Submission of documents necessary for Certificate of Eligibility at the time of application for the course

(applicant → International Exchange Center)

- ② Completion of admission procedures after having been accepted (accepted student → Admissions Office)
- ③ Application for Certificate of Eligibility
   (International Exchange Center → Sendai Regional Immigration Bureau)
- ④ Issuance of Certificate of Eligibility
   (Sendai Regional Immigration Bureau → International Exchange Center)
- ⑤ Mailing of Certificate of Eligibility
   (International Exchange Center → accepted students)
- ⑥ Applying and obtaining of college student visa in the students' home country.(accepted student → Japanese Embassy or Japanese Consulate)
- (7) Entry into Japan under college student status

# **Application Documents for Certificate of Eligibility**

\* Designated forms are available.

|       |     | Documents         | No.of copies | Notes   |  |
|-------|-----|-------------------|--------------|---|--|
|       |     | Application for   |              | Application forms and instructions are found at the Ministry of |  |
| *     | (1) | Certificate of    | 1            | Justice website   |  |
|       |     | Eligibility       |              |   |  |
|       |     | Photo             |              | The same photo used on the application form for the course      |  |
| * (2) |     | (40mm x 30mm)     | 1            | must be pasted on the designated place of the Application for   |  |
|       |     |                   |              | Certificate of Eligibility form.                                |  |
|       |     | Copy of           |              | All the pages where the applicant's information is entered must |  |
|       | (3) | passport          | 1            | be photocopied and submitted.                                   |  |
|       |     | (if issued)       |              |   |  |
|       | (4) | Bank statement    | 1            | Please submit a certificate for everyone if there are multiple  |  |
| (4)   |     | of your supporter | 1            | financial sponsors.   |  |

For any questions about a certificate of eligibility:

Akita University International Exchange Center 1-1, Tegata Gakuen-machi Akita-shi 010-8502 Japan

Tel.: +81-18-889-2258

E-mail: ryugaku@jimu.akita-u.ac.jp

#### 11. Other Notes

Akita University has established the university's Rules on Security Export Control in accordance with the Foreign Exchange and Foreign Trade Act, and conducts strict examinations for acceptance of international students, etc. Therefore, please be advised that international applicants may be unable to receive their desired education or conduct their desired research due to the restriction by the above regulations.

# **Graduate School Outline**

#### (1) Organization

The Graduate School of Engineering Science consists of a two-year Master's Degree Program and a three-year Doctor's Degree Program.

The Doctor's Degree Program consists of 1 department (4 fields). The organization of this program is different from the undergraduate program and the Master's Degree Program.

## [Doctor's Degree Program]

| Department                     | Field   |
|--------------------------------|---|
|                                | Life Science  |
|                                | Materials Science   |
| Integrated Engineering Science | Mathematical Science and Electrical-<br>Electronic-Computer Engineering |
|                                | Systems Design Engineering  |

#### (2) Department Outline and Field Contents

## [Department of Integrated Engineering Science]

The Department of Integrated Engineering Science consists of four fields: the Field of Life Science, the Field of Mathematical Science and Electrical-Electronic-Computer Engineering, and the Field of Systems Design Engineering. The aim is to develop advanced engineers, scientists capable of advanced independent research, and educators, equipped with a strong foundation in the specialized fields of life science, materials science, mathematical science and electrical-electronic-computer engineering, and systems design engineering, and with broad knowledge in other specialized areas, who will accurately recognize the needs of society and contribute to society as leaders.

#### **《Field of Life Science》**

The results of research in the life sciences, such as mapping of the human genome and discovery of iPS cells, have led to breakthroughs that brought about many new advances in science and technology, as these fields can be seen as carving out the future of human society. Of the various basic science fields that have been dedicated to solving the key issues believed to help us understand the secrets of life, the role played by the life science field is becoming increasingly important.

Moreover, as academic disciplines as well as science and technology continue to advance, the relationship between life science and other academic fields is becoming increasingly close, and new integrated or collaborative research fields are emerging one after another. The Field of Life Science

addresses the situation and needs of society by nurturing human resources who understand the national and regional characteristics of Japan and can see them from a global perspective, and who, while observing social obligations and the ethical code of engineers and scientists, carry out research and development based on their advanced specialized knowledge and skills in life science-related fields, while going beyond the framework of their own specialty to promote convergence with other research fields and the opening up of new research fields.

#### **《Field of Materials Science》**

While the dramatic advances in science and technology in the 20th century brought about unprecedented changes and advancement to human society, by the end of the century environmental degradation had become a serious problem on a global scale. Today in the 21st century, leading-edge technologies that enable society to achieve both abundance and environmental protection, and technologies for reducing environmental impact, are seen as more important than ever before.

To respond to these needs of society, the materials science field must be developed in order to understand the properties of materials and substances at the atomic, molecular, and electron level and, while drawing out the limits of their potential, to create new materials and functions.

To these ends, strong efforts must be made to develop human resources whose knowledge goes beyond traditional science, engineering, physics, and chemistry, and who are equipped with broad and abundant specialization in materials science transcending these existing academic areas. With the emergence of nanoscience and nanotechnology in the 1990s and after, there is a global need for materials scientists who can obtain an overview of a broad range of areas, including interdisciplinary fields, on the basis of new science and engineering foundations across traditional academic fields. The Field of Materials Science aims to nurture human resources who meet these desired characteristics, having a comprehensive understanding and awareness of the workings of nature and the properties of materials, able to convey this knowledge to society in easily understood terms, and equipped with the skills and strong ethical grounding for applying their knowledge to the sustained development of human society.

- 1) Applied Chemistry: Leading-edge education and research are carried out, aimed at gaining an understanding of the mechanisms by which material properties and functions occur on a chemistry base, including by design and analysis of materials at the atomic and molecular level, in order to develop technologies for creation and use of materials with a strong emphasis on environmental preservation and safety, and to design sustainable chemical processes. In addition, though academic projects, education and research are carried out for developing human resources with a broad perspective who will seek harmony between the earth's environment and science and technology.
- 2) Materials Science and Engineering: Education and research are carried out, aimed at developing new materials with new functions, and at improving the performance of, or

developing more efficient manufacturing processes for, already developed materials, by providing and controlling the physical, chemical, and mechanical properties of various materials, and by evaluating functions. Education and research are also carried out toward rational development and manufacturing methods and process design for realizing materials with the necessary functions.

#### 《Field of Mathematical Science and Electrical-Electronic-Computer Engineering》

The coming of the highly aging society has made it necessary to solve the problems facing local regions by creating new technologies and value and by making use of information and communication technologies (ICT).

The objective of this field is to develop human resources who have acquired interdisciplinary and advanced specialized technology. To this end, an education and research program is provided that starts from the fundamental science fields of mathematics and physics and encompasses leading-edge technology fields of electrical and electronic engineering as well as computer engineering.

- 1) Mathematical Science: Abstract thinking skills and intuitive ability in mathematics or physics are said to be qualities characteristic of persons who study in the field of mathematical science such as mathematics, theoretical physics, and computer science. In today's society, as the amount of information conveyed grows enormously day by day and its contents are becoming increasingly complex, such qualities are likely to be in high demand in many different areas. Students in Mathematical Science are assumed to have completed the contents of the master's program in the Mathematical Science Course or the equivalent. Building on this knowledge, they pursue advanced studies in methods of creating mathematical structures and physical models and in techniques of analysis and computation that are essential to building fundamental theories in the science and engineering fields, as well as forming a broad perspective through studies in related fields, as they carry out education and research aimed at heightening their problem-solving skills from a mathematical science perspective.
- 2) Electrical and Electronic Engineering: Today's information society is supported by infrastructure that includes electrical energy, electronic equipment incorporating photonic and electronic devices such as liquid crystal displays and microchips, information networks of optical fiber and mobile phones, and the control systems necessary for large-scale systems of various kinds as well as robots. Education and research are carried out for developing human resources able to deeply absorb the essence of leading-edge technologies in the specialized fields relating to electrical and electronic engineering, and who will contribute to solving global problems of which energy and environmental issues are representative, as well as regional issues such as aging populations and community revitalization.

3) Human-Centered Computing: Necessary for using ICT to achieve harmony between people and computers are (i) a deep understanding of the way human beings process information and development of technology making use of that understanding, (ii) development of advanced sensing technology to enable acquisition of the desired information, and (iii) development of technologies and application systems for realizing safe and secure networks that convey information properly. Education and research in Human-Centered Computing include such subjects as advanced study on sensory information engineering, which deals with psychophysics methods for investigating perception and motor functions including brain functions of living beings as well as the design of testing and support systems; advanced study on remote sensing engineering for analyzing remote sensing data, developing algorithms, and applying image recognition; and advanced study on information network theory for developing information network routing rules, network design, and optimization methods.

#### 《Field of Systems Design Engineering》

The outstanding capabilities of the Japanese in the art of manufacturing and in building production infrastructure are believed to be major factors enabling rapid economic growth in a short time, which turned Japan into a highly developed country. For the near and long-term future, however, the urgent needs for realizing sustainable societal growth include dealing with such problems as the aging society with declining birthrates, and information technology revolution, obtaining energy on a global scale, and protecting the local and global environment by building the infrastructure for a material-cycle society.

The field aims to address such issues through manufacturing toward formation of a sustainable society, creation of new industries, and provision of infrastructure for everyday life. It is therefore a field of study that seeks convergence and harmony among various areas including mechanical engineering, electrical and electronic engineering, and civil and environmental engineering; and for the sake of building a society that enjoys sustainable and creative growth without harming the global environment, it aims to contribute to solving regional problems and extend these solutions worldwide. To achieve these objectives, the field consists of two areas of study. The first is Mechanical Engineering, focusing on sustainable society based primarily on: Electro-mobility technologies enable efficient transportation, Medical Engineering technologies correspond to aging society and Sustainable Mechanical Engineering technologies contribute on sustainable manufacturing. Second is Civil and Environmental Engineering, aimed at building and maintaining social infrastructure in urban and regional areas in an aging society with declining birthrates, designed for disaster prevention and mitigation and for environmental protection, where anyone can live and produce.

- 1) Mechanical Engineering: With a view in helping creation of sustainable society where human, environment and machines are in good harmony, education and research are carried out in three areas: electro-mobility enables efficient and sustainable transportation, medical engineering corresponds to the aging society and sustainable mechanical engineering including renewable energy and environmentally benign design technologies.
- 2) Civil and Environmental Engineering: Education and research are aimed at building and maintaining social infrastructure that is in harmony with the environment and disaster resistant, enabling all people to live in safety and security, by conducting advanced research and technology development mainly in the areas of structural engineering, geotechnics, hydraulic engineering, urban and traffic engineering, and concrete engineering, as well as fields merging these areas.

| Field                                   | Life Science   |                                      |   |  |  |  |  |
|---|--|--------------------------------------|---|--|--|--|--|
| Field of<br>Instruction and<br>Research | Quality  | Faculty Member                       | Instruction Subject   |  |  |  |  |
| Life Science                            | Structural Biology of enzyme reaction mechanisms, biochemical characterization, and medical and/or industrial applications of protein nanocompartments | Prof.<br>Masafumi Odaka              | Bioanalytical Science I, II<br>Spectroscopy and<br>Analytical Chemistry I, II |  |  |  |  |
|   | Computational design of photofunctional molecular devices.   | Associate Prof.<br>Yoshiaki Amatatsu | Computational Chemistry<br>for Molecular Design I, II                         |  |  |  |  |
|   | Spectroscopic studies on functional mechanism of metalloproteins for industrial and agricultual applications.  |                                      | Spectroscopy and<br>Analytical Chemistry I, II                                |  |  |  |  |
|   | Synthetic chemistry of biologically active natural products. Studies of structure-activity relationship of cytotoxic natural products.                 |                                      | Synthetic Natural<br>Products Chemistry I, II                                 |  |  |  |  |
|   | Development of nanotechnology oriented bioelectrochemical devices.   | Associate Prof.<br>Uichi Akiba (2)   | Biofunctional<br>Electrochemistry I, II                                       |  |  |  |  |
|   | Studies on synthesis and characterization of new functional materials based on macrocyclic compounds.  |                                      | Supramolecular<br>Chemistry<br>for Biology I, II                              |  |  |  |  |
|   | Study of morecular maturation and quality control of proteins in living cells.  Toxicity of aggregation prone proteins in neurodegenerative disease.   | Hiroshi Kubota                       | Molecular Cell Biology I, II  |  |  |  |  |
|   | Studies on immune responses based on molecular cell physiology.  | Prof.<br>Masaki Hikida               | Molecular Cell<br>Regulation Science I, II                                    |  |  |  |  |
|   | Principles of tissue and organ formation   | Prof.<br>Masakazu Yamazaki           | Tissue and Organ Formation I, II  |  |  |  |  |
|   | Neuroscience of likes and dislikes   | Associate Prof.<br>Nobuhiro Yamagata | Behavioral Genetics I, II   |  |  |  |  |

<sup>24</sup> This associate professor will retire by the mandatory retirement regulation in March 2024.

| Field                                   | Materials Science  |                                      |  |  |  |  |
|---|--|--------------------------------------|--|--|--|--|
| Field of<br>Instruction and<br>Research | Quality  | Faculty Member                       | Instruction Subject                                |  |  |  |
| Applied Chemistry                       | Design and Preparation of Organic<br>Functional Materials for Target Functions<br>Development and Evaluation of Organic<br>Functional Materials for Target Functions | Prof.<br>Mitsutoshi Jikei            | Organic Functional<br>Materials I, II              |  |  |  |
|   | Design and Development of Functional Polymers with Controlled Structures   | Associate Prof.<br>Kazuya Matsumoto  | Functional Polymer<br>Chemistry I, II              |  |  |  |
|   | Design and Development of Supramolecules<br>by Assembling Molecules via Intraand Inter-<br>molecular Interactions  | Associate Prof.<br>Manabu Yamada     | Functional Supramolecular<br>Chemistry I, II       |  |  |  |
|   | Development of Conversion Process of<br>Carbon Resources to Energy and High<br>Functional Materials  |                                      | Carbon Resource<br>Processing I, II                |  |  |  |
|   | Design and Characterization of Inorganic<br>Functional Materials such as Catalytic<br>Materials and Ceramics   |                                      | Functional Inorganic<br>Materials I, II            |  |  |  |
|   | Chemical Characterization and Functional<br>Design of Structural Controlled Metal Oxides<br>such as Porous and Layered Materials                                     | l .                                  | Inorganic Solid-State<br>Materials Chemistry I, II |  |  |  |
|   | Design and Development of Chemical Processes   | Associate Prof.<br>Hiroshi Takahashi | Advanced Chemical<br>Process Design I, II          |  |  |  |
|   | Design of Electrochemical Reaction Process and Development of Battery Materials  | Prof.<br>Hirokazu Okawa              | Electrochemical<br>Process I, II                   |  |  |  |
|   | Bioprocess design and development by<br>integrating biological and biochemical<br>technologies, and creation and application of<br>new functional biomaterials       | Takeshi Gotoh                        | Bioprocess Engineering I, II                       |  |  |  |
|   | Research of mass transfer and chemical reaction in the earth environmental system utilizing advanced analytical techniques   | I .                                  | Earth Environmental<br>System I, II                |  |  |  |
| Materials Science<br>and Engineering    | Research and Education on the Structural<br>Analysis of Materials and the Development<br>of Structural and Functional Materials by<br>Microstructure Control         |                                      | Electron<br>Crystallography I, II                  |  |  |  |
|   | Fabrication and Evaluation of Thin Film<br>Materials and Their Appplication to<br>Advanced Electronic Devices  |                                      | Advanced Magnetic<br>Thin Films I, II              |  |  |  |

| Field                                   | Materials Science   |                                       |   |
|---|---|---------------------------------------|---|
| Field of<br>Instruction and<br>Research | Quality   | Faculty Member                        | Instruction Subject   |
| Materials Science<br>and Engineering    | Education and Research of Designing for<br>Chemical Reaction of Non-organic Materials<br>and Estimation of Properties         |                                       | Design of Reaction<br>for High Temperature<br>Materials I, II |
|   | Mechanisms of Ceramic-ceramic and<br>Ceramic-metal Reactions and their Control  |                                       | Inorganic Structural<br>Materials I, II                       |
|   | Properties and Applications of Electrochemical Devices  | Associate Prof.<br>Michihisa Fukumoto | Interface Controlling<br>Technology I, II                     |
|   | Research and Education on Modeling and Simulation for Microstructure to evaluate Physical Properties of Structural Materials. |                                       | Physical Properties of<br>Structural Materials I, II          |
|   | Occurrence of High Performance in Inorganic<br>Materials by Synergetic Structural Control<br>via Powder Processes             |                                       | Advanced Design of<br>Inorganic Materials I, II               |
|   | Application of Inelastic Constitutive Models to Finite Element Analysis   | Prof.<br>Ken-ichi Ohguchi             | Applied Mechanics of<br>Elasto-Plastic Materials I, II        |

| Field                                   | Mathematical Science and Electr   | ical-Electronic-Com                 | puter Engineering   |
|---|---|-------------------------------------|---|
| Field of<br>Instruction and<br>Research | Quality   | Faculty Member                      | Instruction Subject   |
| Mathematical<br>Science                 | Algorithms in Algebraic Structures and Applications to Information Security and Cryptography  | Akihiro Yamamura                    | Advanced Algebra VII, VIII  |
|   | Automata theory and combinatorics of strings  | Szilard Fazekas                     | Advanced Discrete<br>Mathematics III, IV  |
|   | Probability theory, Linear Differential Equations, and related Inverse Problems   | Prof.<br>Hajime Kawakami            | Advanced Analysis VII, VIII   |
|   | Theory of Mappings for shape Detection  | Associate Prof.<br>Mahito Kobayashi | Advanced Geometry V, VI   |
|   | Transport Theory and its Applications in Electronic and Electromagnetic Wave Propagation  | Prof.<br>Masaru Onoda               | Quantum Transport<br>Theory I, II   |
|   | Theory of Superconductivity Phenomenon and Anisotropic Superconductivity and its Applications   |                                     | Advanced Physics of<br>Superconductors I, II  |
|   | Experimental and Theoretical Studies on High-<br>tamperature Physical Properties of Molten Oxides   | Toru Sugawara                       | Advanced<br>High-Temprature<br>Physical Properties I, II                            |
| Electrical and<br>Electronic            | Development and Analysis of Devices and<br>Materials for Electric Power   | Seiji Kumagai                       | Power Device and<br>Materials Engineering I, II                                     |
| Engineering                             | Analysis and Application of Electromagnetic<br>Wave on Non-destructive Test Methods for<br>Living Bodies  | Associate Prof.<br>Mahmudul Kabir   | Advanced<br>Bio Electromagnetic<br>Engineering I, II                                |
|   | Application, Control and Design of Power Stationary Apparatus and Rotating Machine  | Prof.<br>Katsubumi Tajima           | Advanced Machinery<br>Engineering for<br>Electromagnetic<br>Energy Conversion I, II |
|   | Application of Artificial-Intelligence Type<br>Algorithms Like Neural Networks and<br>Genetic Algorithms for Control Systems  |                                     | Intelligent Electronic<br>Control System<br>Engineering I, II                       |
|   | Structure and Magnetic Properties of Advanced Magnetic Materials and Their Evaluation Methods   | Hitoshi Saito                       | Advanced Magnetic<br>Materials I, II  |
|   | Organic Molecular Orientation and Their<br>Application to Optoelectronic Devices  | Prof.<br>Rumiko Yamaguchi           | Organic Photo-<br>functional Material<br>and Device I, II                           |
|   | Clarification and Application of Optical and Electronic Materials and Their Applications to Optoelectronic Devices  |                                     | Photonic and Electronic<br>Device Engineering I, II                                 |
|   | Various Types of Compound Semiconductor<br>Crystal Growth and Their Applications to<br>Electronic Devices   | Associate Prof.<br>Yuichi Sato      | Semiconductor<br>Material and Device<br>Engineering I, II                           |
|   | Signal Processing for Information Communication<br>Systems and Numerical Modeling on Signal<br>Transmission, and Their Applications                                   |                                     | Advanced Signal Processing<br>System Engineering I, II                              |
| Human-Centered<br>Computing             | Biomedical Measurements of Sensory Motor<br>Systems and Development of Supportive Devices<br>for Older People and Traffic Accident Prevention.                        | Prof.<br>Kazutaka Mitobe            | Advanced Sensory<br>Information Engineering I, II                                   |
|   | Analysis and Algorithms of Remote Sensing Data,<br>Image Recognition and Image Information Applications   |                                     | Advanced Remote<br>Sensing Engineering I, II  |
|   | Design, Development and Analysis of<br>Human-Centered Ubiquitous Computing<br>Environments Based on Spatial Informatics   | Prof.<br>Masatoshi Arikawa          | Advanced Spatial<br>Informatics I, II   |
|   | Study on Network Design and Optimization for Information Networks and IoT Networks Systems  | Masashi Hashimoto                   | Advanced Information and<br>Communication Network<br>Engineering I, II              |
|   | Human Error Prevention Technologies and<br>Image Data Protection Technologies   | Chikako Ishizawa                    | Advanced Security<br>Systems I, II  |
|   | Design of Software Systems for Remote<br>Support and Collaboration, and Development<br>of VR Simulators and Measuring Systems<br>for Sensorimotor and Cognitive Tests | Katsuya Fujiwara                    | Advanced Software<br>Systems I, II  |

| Field                                   | Systems Design Engineering  |                                       |  |  |
|---|---|---------------------------------------|--|--|
| Field of<br>Instruction and<br>Research | Quality   | Faculty Member                        | Instruction Subject                                      |  |
| Mechanical<br>Engineering               | Scanning Probe Microscopy for Characterization of Micro/Nano Materials  | Prof.<br>Mikio Muraoka                | Advanced Engineering of Micro/Nano Materials             |  |
|   | Design of the Measurement System at the Micrometer to Nanometer Domain  | Prof.<br>Eiki Okuyama                 | Ultraprecision<br>Measurement System                     |  |
|   | Experimental Investigations of Nanostructured Magnetic Materials  | Associate Prof.<br>Yoshiyuki Yamamoto | Nano Magnetic Materials and Devices                      |  |
|   | Advanced Industrial Technology and<br>Science for Material Production, Processing<br>and Utilization  |                                       | Advanced Functional<br>Materials Science                 |  |
|   | Raman Spectroscopic Characterization and Fabrication of Subsurface Structure  | Associate Prof.<br>Makoto Yamaguchi   | Characterization of Subsurface Structure                 |  |
|   | Convection Heat and Mass Transfer in Fluid<br>Saturated Porous Media Encountered in<br>Developing Geothermal Resources  |                                       | Thermal Energy<br>Conversion Engineering                 |  |
|   | Basic Theoretical Instruction and<br>Investigation for Heat and Mass Transfer<br>Associated with Phase Change used for<br>Low Temperature Thermal Energy Storage<br>Systems | Yoshimi Komatsu                       | Low Temperature<br>Thermal Energy Storage<br>Engineering |  |
|   | Design Method and its Application of the<br>Advanced Control System and the Adaptive<br>Control System  |                                       | Advanced Control of<br>Mechanical Systems                |  |
|   | The Education and Research on the Elucidation of a Physical Movement Mechanism and the Application to its Medical treatment and Welfare Field                               | Prof.<br>Takehiro Iwami               | Biomedical Engineering                                   |  |
|   | Machining Technology for Improvement<br>of Engineering Materials Surface and<br>Evaluation of Mechanical Properties of<br>Improved Surface                                  | Mamoru Takahashi                      | Advanced Surface<br>Processing Engineering               |  |
|   | Ecodesign and Eco-efficiency Analysys of<br>Manufacturing Processes, Products, Product-<br>Service Systems, Businesses, and Social<br>Systems.                              | Nozomu Mishima                        | Special Theory on<br>Systems Ecodesign                   |  |
|   | Heat transfer enhancement caused by flow instability and its application.   | Prof.<br>Takahiro Adachi              | Heat Transfer<br>Enhancement                             |  |
|   | Fluid mechanics in blood vessel and its control   | Associate Prof.<br>Takeshi Akinaga    | Biological fluid<br>Engineering                          |  |

| Field                                   | Systems Design Engineering   |                                    |   |
|---|--|------------------------------------|---|
| Field of<br>Instruction and<br>Research | Quality  | Faculty Member                     | Instruction Subject                     |
| Civil and<br>Environmental              | Mechanics and Numerical Analysis of<br>Composite Structures                                | Prof.<br>Humihiko Gotou            | Numerical Analysis                      |
| Engineering                             | Settlement and Failure of Soft Soil Ground   | Associate Prof.<br>Toshihiro Ogino | Systematical Geotechnical Engineering   |
|   | Design of an Urban and Regional Transportation System                                      | Prof.<br>Hidekatsu Hamaoka         | Regional Transport<br>Engineering       |
|   | Design of an Urban Transportation System and a Welfare City                                | Associate Prof.<br>Satoru Hino     | Regional and<br>Infrastructure Planning |
|   | Construction Materials Including Concrete<br>Polymer Composites, and Advanced<br>Materials |                                    | Advanced Construction<br>Materials      |
|   | Measurements and Numerical Modeling of<br>Natural Phenomenon in Water Area                 | Associate Prof.<br>Kazuya Watanabe | Advanced Computational<br>Hydraulics    |

#### (3) Requirements for Completion of the Doctoral Course

A Doctoral degree is awarded if the student has satisfied the following requirements: at least three years of registration in the Doctoral program; acquisition of a minimum of 12 course credits required by the Graduate School (shown in the chart below); an acceptable Doctoral thesis written under the guidance of faculty members; passing the final comprehensive evaluation.

A minimum period of 3 years, that may include the residence period in the Master's program, may be considered sufficient to receive the degree if the student demonstrates exceptional achievement.

## [Credits Needed for the Completion of the Doctoral Program]

(Except students in the Field of Life Science)

| ·I                                       | 0.01100 111 0110 1 10101                | ,       |
|--|---|---------|
| Courses                                  | Credits Required                        | Remarks |
| Common<br>Subjects                       | 8 credits<br>(required)                 |         |
| Common Subjects and Specialized Subjects | A minimum of<br>4 credits<br>(elective) |         |
| Total                                    | A minimum of (12 credits)               |         |

## [Credits Needed for the Completion of the Doctoral Program]

(For students in the Field of Life Science)

| Courses                                  | Credits Required                        | Remarks |
|--|---|---------|
| Common<br>Subjects                       | 8 credits<br>(required)                 |         |
| Specialized<br>Subjects                  | 2 credits (required)                    |         |
| Common Subjects and Specialized Subjects | A minimum of<br>2 credits<br>(elective) |         |
| Total                                    | A minimum of 12 credits                 |         |

# Doctoral Course 2023 October (Fall) Admission, 2024 April (Spring) Admission Affiliated School Recommendation

# Graduate School of Engineering Science, Akita University

# **Application for Admission**

| Admission Category    | 1.2023 October A<br>2.2024 April Adm |                   |                 | Application No. | *                |
|-----------------------|--------------------------------------|-------------------|-----------------|-----------------|------------------|
| _ ,                   | ·                                    | Circle the option | on that applies |                 |                  |
| Desired Field         |                                      |                   |                 |                 |                  |
| Desired Supervisor    |                                      |                   |                 |                 |                  |
| Name of Applicant     |                                      |                   |                 | 6               | ex Male / Female |
| Date of Birth         |                                      | month             | day             | year            | ex Male / Female |
|                       | Undergraduate Le                     | evel              |                 |                 |                  |
|                       | Name of Scl                          | nool:             |                 |                 |                  |
|                       | M                                    | ajor:             |                 |                 |                  |
| Educational           | Date of Gradua                       | ition:            |                 |                 |                  |
| History               | Postgraduate Lev                     | el                |                 |                 |                  |
|                       | Name of Scl                          | nool:             |                 |                 |                  |
|                       | Course/M                             | ajor:             |                 |                 |                  |
|                       | Date of Comple                       | etion:            |                 |                 |                  |
|                       | Name of Employe                      | r                 |                 |                 |                  |
| Current<br>Employment | Address:                             |                   |                 |                 |                  |
|                       | Tel.:                                |                   | pos             | stal code c     | ountry           |
|                       | Address:                             |                   |                 |                 |                  |
| Current               |                                      |                   |                 |                 |                  |
| Address               | Tel.:                                |                   | pos             | stal code c     | ountry           |
|                       | Mail address:                        |                   |                 |                 |                  |
| 0                     | Address:                             |                   |                 |                 |                  |
| Contact<br>Address    |                                      |                   |                 |                 |                  |
|                       | Tel.:                                |                   | pos             | stal code c     | ountry           |

#### Note:

- 1. \* Official use only.
- 2. Please use BLOCK LETTERS and BLACK INK
- 3. Contact Address is where applicant wishes to receive correspondence.
- 4. Detailed information is requested in the Curriculum Vitae.

# Curriculum Vitae

| From: | То:   |
|-------|---|
| From: | То:   |
| Date: |   |
|       | From: Date: Date: Date: |

#### **Doctoral Course**

# 2023 October (Fall) Admission, 2024 April (Spring) Admission Affiliated School Recommendation

# Graduate School of Engineering Science Akita University

# **ID Photo Card**

| Classification        | Recommendation by Affiliated School  |
|-----------------------|--|
| Admission<br>Category | <ol> <li>2023 October Admission</li> <li>2024 April Admission</li> <li>Circle the option that applies</li> </ol> |
| Application<br>No.    | *  |
| Name                  |  |
| Desired<br>Field      |  |
|                       | Please paste ID photo. (4.5cm x 3.5cm) Upper frontal view of applicant without a hat.                            |

#### Note:

- 1. \*Official Use Only
- 2. Photo must be taken within 3 months prior to application.

# Abstract of Master's Thesis (No. 1)

Graduate School of Engineering Science, Akita University

|                                | ·           |
|--------------------------------|-------------|
| Application No.                | <b> </b> ** |
| Applicant's<br>Name            |             |
| Graduate<br>School<br>Attended |             |
| Desired Field                  |             |
| Desired<br>Supervisor          |             |
| Master's<br>Thesis Title       |             |
|                                |             |

Official Use Only

# Abstract of Master's Thesis (No. 2)

Graduate School of Engineering Science, Akita University

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|-----------------------|----------|----------|
| Application No.       | <b>*</b> |          |
| Applicant's<br>Name   |          |          |
| Desired Field         |          |          |
| Desired<br>Supervisor |          |          |
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Official Use Only

# Research Plan

Graduate School of Engineering Science, Akita University

| Application No.       | <b>*</b> |
|-----------------------|----------|
| Applicant's<br>Name   |          |
| Desired Field         |          |
| Desired<br>Supervisor |          |
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# Record of Academic Achievements (No. 1)

Graduate School of Engineering Science, Akita University

|                             | Graduate School of Engineering Science, Akita Oniversity |
|-----------------------------|--|
| Application No.             | <b> </b> **  |
| Applicant's<br>Name         |  |
| Desired Field               |  |
| Desired<br>Supervisor       |  |
| Title of<br>Master's Thesis |  |
| Employment<br>History       |  |
|                             |  |
| Description of pa           | ist work related to research (300 words or less)         |
|                             |  |

Note:1. \*\*Official Use Only

2. Title of Master's Thesis is not required if the applicant has not written a thesis.

# Record of Academic Achievements (No. 2)

Graduate School of Engineering Science, Akita University

| *                 |                        |                                 |   |
|-------------------|------------------------|---------------------------------|---|
|                   |                        |                                 |   |
|                   |                        |                                 |   |
|                   |                        |                                 |   |
| tations, reports, | Year, volume,          | Name of publisher, journal,     | Other   |
| tc.               | page, etc.             | academic society, etc.          | (Co-author or co-presenter)                                 |
|                   |                        |                                 |   |
|                   |                        |                                 |   |
|                   | itations, reports, tc. | tations, reports, Year, volume, | tations, reports, Year, volume, Name of publisher, journal, |

Note:1. \* Office use only.
2. Enter the information in chronological order.
3. Copies of academic papers are required.

# Pre-evaluation Request for Application Qualification

I intend to apply for the  $\frac{\times 2023 \text{ Fall or } 2024 \text{ Spring}}{\times \text{Requirement } (2) \text{ or } (3)}$  of the Application Qualification. I hereby request for the Pre-evaluation of Application Qualification.

\*\*Circle 2023 Fall or 2024 Spring, whichever is applicable
\*\*Circle (2) or (3), whichever is applicable

| Date:                       |       |              |                |                     |
|-----------------------------|-------|--------------|----------------|---------------------|
|                             | month | day          | year           |                     |
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|                             |       |              |                |                     |
| Name of Applicant:          |       |              |                |                     |
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|                             |       |              |                |                     |
|                             |       |              |                |                     |
| Address:                    |       |              |                |                     |
|                             |       |              |                |                     |
| Tel. Number:                |       |              |                |                     |
| Mail address:               |       |              |                |                     |
| Desired Field:              |       |              |                |                     |
| Desired Field.              |       |              |                |                     |
| Last School Graduated from: |       |              |                |                     |
| Last Gorison Gradated Home. |       |              | names of fac   | ulty and course.)   |
|                             |       |              |                |                     |
| Date of Graduation:         |       |              |                |                     |
|                             |       | month        | day            | year                |
|                             |       |              |                |                     |
|                             |       |              |                |                     |
|                             |       |              |                |                     |
| Present Position:           |       |              |                |                     |
|                             |       | (Enter organ | nization, depa | rtment, and title.) |

#### **Doctoral Course**

# 2023 October (Fall) Admission, 2024 April (Spring) Admission Graduate School of Engineering Science, Akita University

# Academic Record for Approval of Application Qualification

| Admission Category   | 1. 2023 October Admission     2. 2024 April Admission         |  |  |  |
|--|---|--|--|--|
| Application Number   | Circle the option that applies                                |  |  |  |
| Name   | Date of Birth   |  |  |  |
| Desired Field  | Date of Birth   |  |  |  |
| Desired Supervisor   |   |  |  |  |
|  |   |  |  |  |
| Present Employment Academic History (begin with high school) |   |  |  |  |
| Date mm/dd/yy  | (Names of school, major, diplomas or degrees awarded)         |  |  |  |
|  | ( tallings of control, major, alphanias of adjusted arranged) |  |  |  |
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|  | Employment History  |  |  |  |
| Date mm/dd/yy  | (Names of employers and titles)                               |  |  |  |
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| Community and/or Academic Society Activities                 |   |  |  |  |
| Date mm/dd/yy  | (Please give details)   |  |  |  |
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Note: 1. Please attach Record of Academic Achivements.

# Proof of Evaluation Fee Payment Form

| Application Number:      | <b>﴿</b>                            |
|--------------------------|-------------------------------------|
| Applicant's Name:        |                                     |
| Desired Graduate School: |                                     |
| Desired Field:           |                                     |
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|                          | Proof of Payment for Evaluation Fee |
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Note: 1. \*Official Use Only

2. Please make sure the Proof of Payment is securely pasted and the date of payment is visible.