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## Admission Guide for Entry in Academic Year 2023

# Department of Information and Communication Engineering

Graduate School of Information Science and Technology  
The University of Tokyo

Master's Program

Doctoral Program

Contact [Department Admission Office] Department Office of Electrical Engineering and Information Systems

Address: Faculty of Engineering Building #2, 4<sup>th</sup> floor, 7-3-1 Hongo Bunkyo-ku, Tokyo 113-8656, Japan

Phone: 03-5841-6712

E-mail: [ice-admission@ee.t.u-tokyo.ac.jp](mailto:ice-admission@ee.t.u-tokyo.ac.jp)

Department Team (Information and Communication Engineering), Graduate School of Engineering /  
Information Science and Technology Academic Affairs Support Group, The University of Tokyo

Visit our department's admission website through the graduate school's website:  
[https://www.i.u-tokyo.ac.jp/edu/course/ice/admission\\_e.shtml](https://www.i.u-tokyo.ac.jp/edu/course/ice/admission_e.shtml)

Emergency Contact (in the morning of examination of specialized subject)

Department of Information & Communication Engineering:

Office of the department: 03-5841-6712

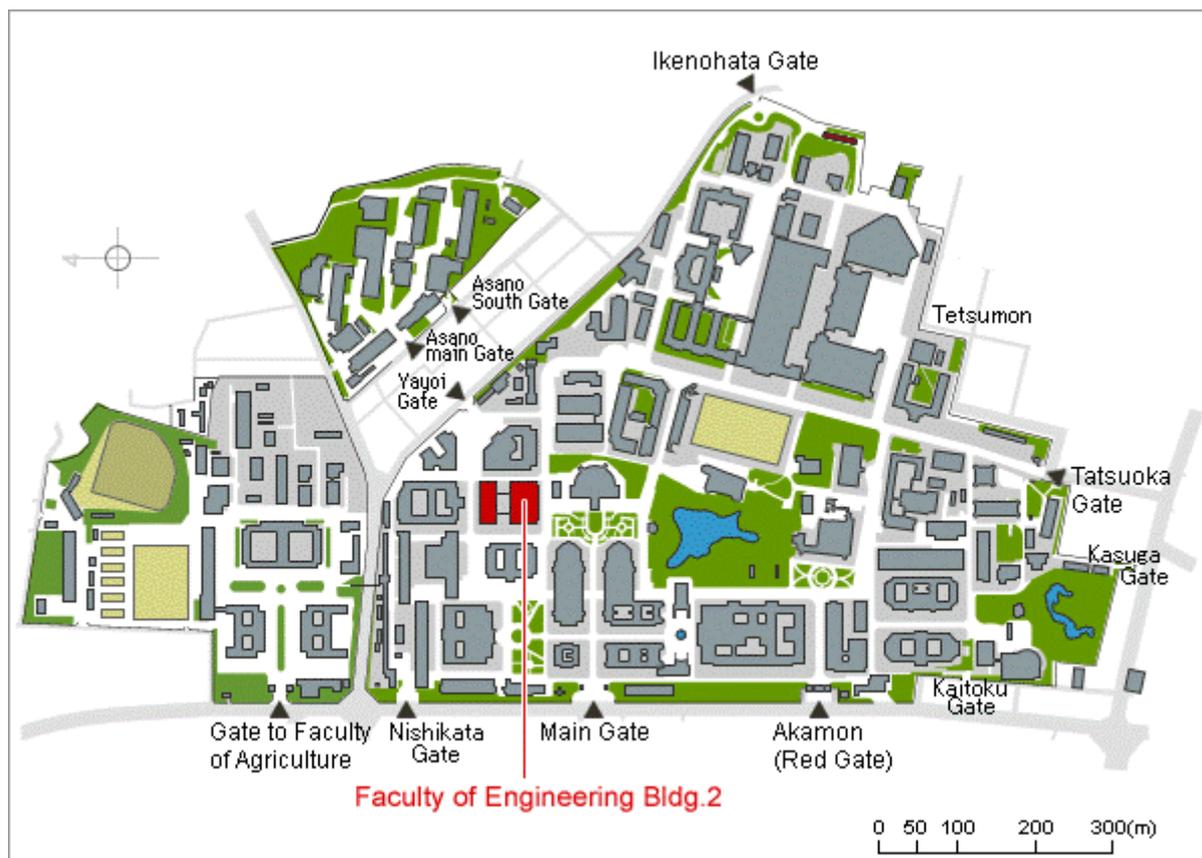
Department Admission Office: 03-5841-6669

Note: This guide should be read together with the graduate school's admission guide: "AY2023 Admission Guide: {Master's / Doctoral} Program, Graduate School of Information Science and Technology, The University of Tokyo." The details of this guide may be changed. In that case, it will be posted on the department's admissions website.

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## Map of Examination Venue The University of Tokyo, Hongo Campus (7-3-1 Hongo Bunkyo-ku, Tokyo 113-8656)

Department of Information and Communication Engineering  
Graduate School of Information Science and Technology



Toei Subways and Tokyo Metro:

Hongo-sanchome (Marunouchi Line M21 or Oedo Line E08), Nezu (Chiyoda Line C14),  
Todai Mae (Namboku Line N12), or Kasuga (Mita Line I12 or Oedo Line E07)

Toei Bus:

“Todai Seimon Mae” (東大正門前) on route 東 43 or 茶 51; or “Todai Konai” (東大構内) on route 学 01 or 学 07

The details of the general education subject (mathematics) examination are instructed in the graduate school’s admission guide and its accompanying guideline of on-site examination. For the specialized subject examination conducted by the department, instructions are given in this admission guide.

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## Objectives of the Department

The mission of the Department of Information and Communication Engineering is to innovate and establish key principles and technologies in computing, communication, and human-computer interaction that empower and shape the future of our increasingly connected and computerized society in a manner that harmonizes with the human being. To this end, we offer education in master's and doctoral programs to train students enthusiastically pursuing the field, with the hope to make a significant contribution to society's better future and to play leading roles in the next generation, based on their solid understanding of both information and communication technologies and our information society.

**Keywords:** Computer Architecture, High-Performance Computing, Parallel Processing, Database, Big Data, Cloud Computing, Information Networks, Mobile Computing, IoT, Natural Language Processing, Computer Vision, Image Processing, Artificial Intelligence, Machine Learning, Multimedia, Human Interface, Human-Computer Interaction, Virtual Reality, Game AI, Cyber Security, Personal Information Protection Technology, Intelligent Transportation Systems, Spatial Information Processing, Evolutionary Computing, Complex Systems, Information-Physics.

## 1. Schedules and Venues

### 1.1. Master's Program, Summer Exam

#### Document screening

Applicants are screened by the submitted documents. Refer to the admission guide of the graduate school about acceptance notification of the document screening. Subsequently, applicants who passed the document screening are subject to written examinations and oral examinations. Examination tickets will be sent to all candidates, but only those whose examination numbers are listed on the Graduate School of Information Science and Technology website are eligible to take the written and oral examinations.

#### Written and Oral Examinations

The written examination will be held at the venue below. For the written examination of mathematics, please refer to the admission guide of the graduate school. Regarding the online written examinations, please refer to the admission guide of the graduate school and apply. **Online examinees are also required to take online connection testing for mathematics.** For those who take the written examination of mathematics online, the written examination of specialized subjects will also be conducted online. The oral examination and interview will be conducted online, and the details will be announced separately.

Date	Time	Venue	Subject	Remarks
August 4 (Thu.) 2022	Refer to the admission guide of the graduate school.		Mathematics	See 2.5 and 3.3.
August 22 (Mon.) 2022	10:00~12:30	Engineering Building #2, 4th floor, lecture room 241	Specialized subjects	See 2.6 and 3.3.

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August 26 (Fri.) 2022	10:00~14:00	Online	Oral Exam.	
August 29 (Mon.) 2022	10:00~	Online	Interview	See 3.2 Applicants for the interview will be announced on August 27 (Sat.) on the ICE Entrance Examination Guide website.

## 1.2. Doctoral Program, Summer Exam

### Written and Oral Examinations

The written examination will be held at the venue below. For the written examination of mathematics, please refer to the admission guide of the graduate school. For the online written examinations in specialized subjects, please refer to the admission guide of the graduate school and apply. **Online examinees are also required to take tutorials for online connection testing for mathematics.** The oral examination and interview will be conducted online, and the details will be announced separately.

Date	Time	Venue	Subject	Remarks
August 22 (Mon.) 2022	10:00~12:30	Engineering Building #2, 4th floor, lecture room 241	Specialized subjects	See 2.6 and 3.3.
August 25 (Thu.) 2022	9:00~	Online	Oral Exam.	See 4.4

## 1.3. Master's Program, Winter Exam

### Document screening

Applicants are screened by the submitted documents. Refer to the admission guide of the graduate school about acceptance notification of the document screening. Subsequently, applicants who passed the document screening are subject to written examinations and oral examinations. Examination tickets will be sent to all candidates, but only those whose examination numbers are listed on the Graduate School of Information Science and Technology website are eligible to take the written and oral examinations.

### Written and Oral Examinations

The written examinations will be held at the venue below. The written examinations for the specialized subjects will be held at the venue but may also be conducted online.

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Date	Time	Venue	Subject	Remarks
January 24 (Tue.) 2023	10:00~12:30	Engineering Building #2, 4th floor, lecture room 241	Specialized subjects	See 2.6 and 3.3.
January 26 (Thu.) 2023	10:00~12:00	Online	Oral Exam.	See 3.2 Applicants for the interview will be announced on January 25 (Wed) on the ICE Entrance Examination Guide website.

## 1.4. Doctoral Program, Winter Exam

### Written and Oral Examinations

The written examinations will be held at the venue below. The written examinations for the specialized subjects will be held at the venue but may also be conducted online.

Date	Time	Venue	Subject	Remarks
January 24 (Tue.) 2023	10:00~12:30	Engineering Building #2, 4th floor, lecture room 241	Specialized subjects	See 2.6 and 3.3.
January 25 (Wed.) 2023	13:00~	Online	Oral Exam.	See 4.4

## 2. General Notices

This section describes general rules that apply to the entrance exams of both master's and doctoral programs.

### 2.1. Application Due and Procedures

See "Section 5. Application Procedures" in the Admission Guide of Graduate School of Information Science and Technology.

If you have any questions about this guide, please consult the Department Admission Office shown on the cover page. This is not the same as the Admission Office of the Graduate School of Information Science and Technology, the address for submitting the application documents.

### 2.2. Notices

Please be sure to check the ICE (Department of Information & Communication Engineering) Entrance Examination Guide website for the written and oral examinations, as they are subject to change.

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### **2.3. Advisor Preference Survey**

Fill the preference card form at the end of this guide and enclose it in your application. Your preferences shall not affect your qualification. You will be notified of the advisor, along with the notification of the exam.

### **2.4. English Evaluation**

Your English skill is evaluated by TOEFL score reported via an Official Score Report. For details, see “Guidelines for Submission of TOEFL Scores,” accompanying the admission guide of the graduate school.

### **2.5. Mathematics**

The mathematics examination is conducted only in the entrance examination for the master’s course. It is not conducted in the entrance examination for the doctoral course. For the written examination of mathematics, refer to the admission guide of the graduate school.

### **2.6. Specialized Subjects**

Five problems are given from the following fields, out of which you choose and answer to three in 2.5 hours: electrical /electronic circuits, computer architecture, digital circuits, algorithms and data structures, telecommunication, computer networks, signal processing, and information theory.

For those who take the written examination of mathematics online, the written examination of specialized subjects will also be conducted online. Details of the examination will be announced on the ICE Entrance Examination Guide website. Online examinees need to take online connection testing for mathematics.

### **2.7. Recommendation Letter**

Regarding the submission method of the recommendation letters, see ‘Online Application Procedures-5. Submission of Recommendation Letters’ on the admission website of our Graduate School at [https://www.i.u-tokyo.ac.jp/edu/entra/entra\\_e.shtml](https://www.i.u-tokyo.ac.jp/edu/entra/entra_e.shtml)

Use the form of the recommendation letter in this document for application to the master’s program. The master course applicant should hand the form to the recommender. The format of the recommendation letter for the doctoral course applicant is free.

The due date of the recommendation letter is June 16, 2022 for summer exam and November 28, 2022 for winter exam.

### **2.8. Withdrawal**

In case you have passed the exam but will not (or cannot) enroll for any reason, promptly inform the Admission Office of your intention to withdraw, by downloading the notice of intention to withdraw (入学辞退届) from the Graduate School of Information Science and Technology website and sending it by e-mail to the Graduate School Admissions Office.

### **2.9. Prohibition of Duplicated Qualifications in Summer and Winter Exams**

Those who passed the summer exam of any department of the Graduate School of Information Science and Technology in the University of Tokyo are not eligible to take the winter exam of the same academic year unless you submit the notice of intention to withdraw.

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### **3. Master's Entrance Exam**

This section describes rules specific to the entrance exams of the master's program.

#### **3.1. Communication to Prospective Advisors**

You are recommended to contact at least one prospective advisor prior to your application.

#### **3.2. Submission of Research Plan**

Describe your research plan in the Master's Program in four A4 pages in Japanese or English. Send them with the application form.

1. Research theme
2. Applicant's name
3. Statement about the purpose of admission
4. Research plan in the Master's Program
5. References
6. Special skills or qualifications (including honors, awards, and certifications related to your research activities)

#### **3.3. Oral Exam**

In both the summer entrance exam and the winter entrance exam of the master's program, only applicants who passed prior qualifications—mathematics (only for summer exam), specialized subjects, and paper screening based on submitted application documents—are subject to the oral exam. Applicants for the oral exam will be posted on the ICE Entrance Examination Guide website by 3:00 p.m. on Thursday, August 25, 2022, for the Summer Examination and by 3:00 p.m. on Wednesday, January 25, 2023, for the Winter Examination. Details will be announced after the exam on specialized subjects.

You will be interviewed about the written exams, current research topic, fields of interest, etc.

#### **3.3. Cautions**

Only the examinees who passed the Examination by submitted Documents are eligible for the Written and Oral Examinations.

### **4. Doctoral Entrance Exam**

This section describes rules specific to the entrance exams of the doctoral program.

#### **4.1. Communication to Prospective Advisors**

Communicate with one prospective advisor, obtain acceptance to the laboratory and discuss your research plan prior to your application.

#### **4.2. Required Documents**

Include the following in your application.

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(i) A Summary Paper

A paper summarizing your master's thesis project (or similar activity), including its overview, objectives, results, and outlook. Follow the guidelines below.

- Clarify your research contributions.
- Do not exceed four A4-size single-side pages, including figures and tables.
- Print your current (or latest) affiliation, name, and page number on top of each page.
- Use Japanese or English.

(ii) Recommendation Letter and List of Achievements

Submit a letter of recommendation (any format) from your master's course advisor (or someone who is familiar with your research). Submit a letter of recommendation (any format) from your master's course advisor (or someone who is familiar with your research). However, these submissions may be exempted in some cases; see 4.3 for the conditions. The recommendation form should be filled out by the recommender, and the PDF file should be uploaded to the designated site. The upload site will be announced separately by the graduate school.

(iii) Recommendation Letter by the Applicant's Manager

If you are a working applicant and wish to enter the University while still employed, you must submit a letter of recommendation (in an arbitrary format) written by one of your managers. It is necessary even if the exemption rule in 4.3 is applicable; a recommendation letter by the advisor of your master's thesis project is not necessary.

### **4.3. Exemption of TOEFL, Specialized Subjects, Recommendation Letter, and List of Achievements**

- Submission of TOEFL score (2.4), specialized subjects (2.6), a letter of recommendation written by your master's thesis advisor (4.2), and the list of your achievements (4.2) are exempted if you graduated or are anticipated to graduate in this academic year from the master's program of any of the following departments: Department of Electrical Engineering and Information Systems, Department of Electrical Engineering, Department of Electronic Engineering, and Department of Information and Communication Engineering, in the Graduate School of Engineering, the University of Tokyo; Department of Frontier Informatics in Graduate School of Frontier Sciences, the University of Tokyo; and any Department in the Graduate School of Information Science and Technology, the University of Tokyo.
- They may be exempted if you graduated or are anticipated to graduate in this academic year from the master's program of the following departments: Department of Advanced Energy in Graduate School of Frontier Sciences, the University of Tokyo; Graduate School of Interdisciplinary Information Studies, the University of Tokyo; and Department of Information Engineering in Graduate School of Engineering, the University of Tokyo. Ask the Department Admission Office for your eligibility.

### **4.4. Oral Exam**

You should present your master's thesis research (or similar activity) and your research plan of doctor studies. You are required to prepare a handout of your presentation. The time available will be announced before your presentation, and it is typically about 15 minutes. After your presentation, questions will be asked about the presentation as well as about the written exams. All applicants are subject to this oral exam.

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## **5. Information for On-Site Examinees of the Entrance Exam for Master/Doctoral Program of Department of Information Communication Engineering.**

Notes on taking the written examination at the examination site are given in the admission guide for the On-Site Written Exam of the graduate school. Please read it carefully and be prepared.

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## Preference Card (Master's Program)

Department of Information and Communication Engineering

Graduate School of Information Science and Technology, The University of Tokyo

Examinee's number (for official use only)		Name			
Contact information during the exam period	E-mail: Phone: Mobile:				
Current position of applicant (name of university/company and laboratory/group)					
Education	Status:	University / College	Faculty	Department	
Undergraduate	attending / graduated in year ( )				
Graduate	Status:	University / College	School	Department	
	attending / graduated in year ( )				
A. Do you have preferred research fields? (Select three from the guidelines)		YES / NO (leave one of the two; if yes, specify in the order you prefer)			
	1				
	2				
	3				
B. Do you have preferred advisors? Specify all eight names.		YES / NO (leave one of the two, specify in the order you prefer)			
	1		[ ]		
	[ ]		[ ]		
	[ ]		[ ]		
	[ ]		[ ]		
	[ ]		[ ]		
Do you want to enroll in October?	Yes / No (leave one of the two)				
Do you have a residence card?	Yes/ No (leave one of the two) if yes, expiration date: / /				
Research Plan	Describe your research plan in the Master's Program in four A4 pages in Japanese or English. Send them with the application form. 1. Research theme 2. Applicant's name 3. Statement about the purpose of admission 4. Research plan in the Master's Program 5. References 6. Special skills or qualifications (including honors, awards, and certifications related to your research activities)				

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Guidelines for filling this form

1. Specify research fields in row A from the following:  
Processor architecture, High-performance computing, Communication/Networking, IoT, Database, Big data, Image processing, Natural language processing, Artificial intelligence, Game, User interface, VR/AR, Information security, Artificial life /Evolution/Emergence.
2. Specify at least six preferred advisors in row B (if all advisors you specified are unavailable, you may be assigned a professor who is not on your list). If multiple professors tie in your preference, you may indicate that in the rank column.

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## Preference Card (Doctoral Program)

Department of Information and Communication Engineering

Graduate School of Information Science and Technology, The University of Tokyo

Examinee's number (for official use only)		Name			
Contact information during the exam period	E-mail: Phone: Mobile:				
Education	Status:	University / College	Faculty	Department	
Undergraduate	attending / graduated in year (    )				
Graduate	Status:	University / College	School	Department	
	attending / graduated in year (    )				
Preferred faculty advisor					
Do you want to enroll in October?	Yes / No (leave one of the two)				
Do you have a residence card?	Yes/ No (leave one of the two) if yes, expiration date:    /    /				
Research Summary and Plan	Describe your research results (try lucid explanations, e.g., using figures), list your major publications, and research plan in the Doctoral Program in the following format in four A4 pages in Japanese or English. Send them with the Application Form.  1. Research theme 2. Applicant's name 3. Summary of past research activities 4. Publication list 5. Research plan in the Doctoral Program				

Guidelines for filling this form: Specify one faculty advisor. It is required to obtain the consent of the prospective professor in advance.

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## Letter of Recommendation (Master's Program)

Department of Information and Communication Engineering

Graduate School of Information Science and Technology, The University of Tokyo

The recommender should submit this form to the separately designated site.

Examinee's number (for official use only)		Name of Applicant	
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Relation to the applicant	
How long you have known the applicant	
Evaluation	Please give your assessment of the applicant's position in relation to other students you know or have supervised by marking a circle below.  S · A · B · C · D  ※ S: Outstanding (Top 5%), A: Excellent (Top 10%), B: Good (Top 30%), C: Average (Top 50%), D: Below Average

I hereby certify that the information provided on both sides of this document is true.			
Referee	Date (Y/M/D)		
	Place of employment and job title, etc		
	Contact (Address, Tel and E-mail)		
	Name		Signature

Please write your recommendation on the next page.

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Recommendation

Please upload a pdf of this recommendation (two pages of this form) to the site specified by the graduate school.

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## List of Faculties (as of Apr. 2022)

Department of Information and Communication Engineering  
Graduate School of Information Science and Technology  
The University of Tokyo

[A. Hongo Campus]

※ Professor	Koiti Hasida
※ Professor	Shuichi Sakai
※ Professor	Hitoshi Matsubara
Professor	Kiyoharu Aizawa
Professor	Hiroshi Esaki
Professor	Hitoshi Iba
Professor	Takashi Naemura
Professor	Kenjiro Taura
Professor	Yoshimasa Tsuruoka
Professor	Toyotaro Suzumura
※ Professor	Yoshihiro Kawahara†
Associate Professor	Hidetsugu Irie
Associate Professor	Yoko Yamakata
Associate Professor	Toshihiko Yamasaki
Associate Professor	Daisuke Miyamoto
Associate Professor	Junichiro Mori
Project Associate	Rie Yamaguchi
Professor	
Associate Professor	Yoshihiko Hasegawa
Associate Professor	Hideya Ochiai
Lecturer	Yusuke Matsui

[B. Komaba Research Campus Institute of Industrial Science]

Professor	Kaoru Sezaki
Professor	Yoichi Sato
Professor	Kanta Matsuura
Professor	Masashi Toyoda
Associate Professor	Shunsuke Kamijo
Associate Professor	Kazuo Goda
Associate Professor	Naoki Yoshinaga
Associate Professor	Shinya Sugiura
Associate Professor	Yusuke Sugano

[C. Hitotsubashi Campus National Institute of Informatics]

Professor	Shin'ichi Satoh
Professor	Isao Echizen

※ do not accept students † School of Engineering

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## Required Documents (Dept. of Information and Communication Engineering)

### ■ Master Course

- Preference Card (for Master Program)
- Research Plan
- TOEFL Score
- Transfer Application for the Online Written Examinations (only those who need to do)
- Recommendation Letter (The recommender should submit to the graduate school. )

### ■ Doctoral Course

- Preference Card (for Doctoral Program)
- Research Summary and Plan (no more than four pages in A4)
- TOEFL Score (excluding those of ※1)
- Transfer Application for the Online Written Examinations (only those who need to do)
- Recommendation Letter (excluding those of ※1. Any format. The recommender should submit to the graduate school.)

### ■ Doctoral Course, Special Selection for Professionals

- Preference Card (for Doctoral Program)
- Research Summary and Plan (no more than four pages in A4)
- TOEFL Score (excluding those of ※1)
- Transfer Application for the Online Written Examinations (only those who need to do)
- Recommendation letter by the applicant's manager (Any format. The recommender should submit to the graduate school.)

※1 Those who graduated or are anticipated to graduate in this academic year from the master's program of any of the following departments: Department of Electrical Engineering and Information Systems, Department of Electrical Engineering, Department of Electronic Engineering, and Department of Information and Communication Engineering, in the Graduate School of Engineering, the University of Tokyo; Department of Frontier Informatics in Graduate School of Frontier Sciences, the University of Tokyo; and any Department in the Graduate School of Information Science and Technology, the University of Tokyo.

Some of those who graduated or are anticipated to graduate in this academic year from the master's program of the following departments: Department of Advanced Energy in Graduate School of Frontier Sciences, the University of Tokyo; Graduate School of Interdisciplinary Information Studies, the University of Tokyo; and Department of Information Engineering in Graduate School of Engineering, the University of Tokyo.