### 2019 Entrance Examination Guide
#### Department of Electrical Engineering and Information Systems (EEIS)

#### Doctoral Program Type A Entrance Examination Guide

#### 1. Examination Dates and General Information

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<th>Subject</th>
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<td>English (TOEFL-ITP)</td>
<td>Monday, August 27</td>
<td>Venue info can be found in the “Foreign Language Examination Guide” enclosed in the examination packet.</td>
<td>Admission card, sharpened black (or mechanical) pencils, eraser, pencil sharpener, ruler, watch equipped with time-keeping function only. <strong>Note:</strong> use of calculators, watch calculators, cell phones and dictionaries are not allowed.</td>
<td>Applicants who have submitted an official TOEFL-iBT or TOEFL-PBT score cannot take this English test. Please refer to 2 (1-1)</td>
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<tr>
<td>Regular education subject (mathematics)</td>
<td>Monday, August 27</td>
<td>Venue info can be found in the &quot;Regular Education Subject Examination Guide” enclosed in the examination packet.</td>
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<td>Please refer to 2 (1-2)</td>
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<td>Specialized subject (Electrical &amp; Electronic Engineering and Information Engineering)</td>
<td>Tuesday, August 28</td>
<td>Engineering Bldg.2 Lecture room 242</td>
<td>Examination room information will be posted by the day prior to the examination.</td>
<td>Please attach the applicant's &quot;research plan&quot; sheet to the application form.</td>
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<tr>
<td>Oral examination</td>
<td>Thursday, August 30</td>
<td>Examination room information will be posted by the day prior to the examination.</td>
<td>Admission card, presentation slides (digital format), PC.</td>
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**Notes:**
- Examinees need to enter the examination room 20 minutes before the exam begins.
- The venue for the "English (TOEFL-ITP)" examination will be posted on the School of Engineering bulletin board (Engineering Building #8) on Friday, August 24, 2018 at 10:00 AM.
- Please check the Department of EEIS bulletin board (Engineering Building #2 old annex, 4th floor) for any updates or changes to room assignments.
- Applicants who are students from the University of Tokyo's Department of Electrical Engineering and Information Systems, Department of Advanced Energy, and Department of Information & Communication Engineering: in some cases, oral examinations may be held before Thursday, August 30, 2018.
- Applicants who have completed (or are expected to complete) a master's program at the University of Tokyo's Graduate School of Engineering are not required to take the English test.
- Applicants who have graduated (or are expected to graduate) from a master's program in the University of Tokyo's Department of Electrical Engineering and Information Systems, Department of Electrical & Electronic Engineering, Department of Frontier Informatics, Department of...
2. Overview of Examinations

(1) First-Stage Examination
Type A applicants to the Ph.D. Program must take the English, Regular Education Subject (mathematics), and Specialized Subject (Electrical & Electronic Engineering and Information Engineering) tests.

(1-1) Regular Education Subject (Mathematics)
For details, please check “Application Guidelines” for doctoral programs provided by the Graduate School of Engineering, The University of Tokyo. Past examination problems are downloadable at the following pages:
http://www.t.u-tokyo.ac.jp/soee/admission/general.html
https://www.t.u-tokyo.ac.jp/soe/admission/general_past.html

(1-2) Specialized Subject (Electrical & Electronic Engineering and Information Engineering)
The test will cover basic knowledge needed to conduct graduate-level research in Electrical & Electronic Engineering and Information Engineering.
Examinees are requested to choose and answer two problems from Specialized Subject I and two problems from Specialized Subject II.

- Specialized Subject I: Choose and answer two problems out of four (problem subjects include electromagnetism, circuits, information theory, algorithms and programming).
- Specialized Subject II: Choose and answer two problems out of six (problem subjects include computer architecture and digital circuits, communication technology and signal processing, solid-state physics, electron devices, control engineering and electric machinery, electric power and energy systems).

For details and past examination problems, please refer to the department homepage (http://www.eeis.t.u-tokyo.ac.jp/en/index.html).

(1-3) Oral Examination
All applicants must take the oral examination. Applicants will be asked to make a presentation about their master's thesis (even if it is still being written) or equivalent. A Q&A session will follow the presentation, where some questions regarding the applicants' answers for the written examination may be asked as well.
A projector will be provided for the presentation; applicants are expected to bring their own PC and a USB memory stick that contains a copy of their presentation slides. The latter will be used in case the PC cannot be properly connected to the projector. Applicants are to prepare 6 (six) hard copies of the presentation slides. The length of the presentation will be about 20 minutes.

(2) Second-Stage Examination
An oral examination, focusing on the individual candidate's master's thesis, will be conducted in February 2019 (tentative schedule) for applicants who pass the first-stage examination and are expected to finish their master's program. The actual date will be announced later. Applicants for September entrance will be on different scheduling.

3. Required Documents
At the time of application, please prepare (1) an acceptance letter from the preferred supervisor,
(2) a “Ph.D. Program Research Plan”, and (3) a reference letter from your current advisor or boss (if required, see (3)) to be submitted along with other necessary documents.

(1) Acceptance Letter from Preferred Supervisor
Applicants need to contact their preferred supervisor as early as possible before the application, and receive an acceptance letter (which can be a scanned file or a hard copy of the original letter) with the supervisor’s signature.

(2) Ph.D. Program Research Plan
Research plans should outline the applicant’s research methodology and vision in about 1,000 English words (or 2,000 Japanese characters) on single-sided A4 size paper (not stapled). Plans may be prepared in any format as long as the below points are outlined.

- Research goal (including the background and the current international status of the research)
- Details of the research (annual plans, etc.)
- Originality of the research

Applicants must discuss the details of the research to be conducted during their Ph.D. program with their preferred supervisor beforehand.

(3) Reference Letter from Current Advisor or Boss
Applicants who are currently employed and plan to retain their working status during the study program are required to submit a reference letter from their current boss at work. There are no format restrictions for the reference letter. Please also refer to the corresponding portion of the “Application Guidelines” for doctoral programs provided by the Graduate School of Engineering.

4. Important Notice
The application may be judged invalid if any of the required documents listed above is missing at the time of application.

Entrance examination results may be utilized for the improvement of the future entrance examinations and education at the University of Tokyo.

The Department of Electrical Engineering cannot facilitate a visa for applicants who wish to take the entrance examination.

5. Information about Supervisors
Applicants successfully admitted to the Ph.D. program are directly assigned their preferred supervisors. Applicants need to contact their preferred supervisors as early as possible (before submitting application documents).