

**Tokyo Institute of Technology  
International Graduate Program (C)  
Commencing in October 2015  
Domestic Application**



Admission Date: October 1, 2015

Number of Admitted Students:  
Several Students in each Department

Type of Programs:  
Master's Program, Doctoral Program

Application Period: June 29, 2015 - July 1, 2015

## **1. General Prospectus**

Tokyo Institute of Technology (Hereafter referred to as "Tokyo Tech") launched its International Graduate Program in October 2007 as an opportunity for qualified international students, who may have little or no knowledge of the Japanese language, to enroll in Tokyo Tech's master's or doctoral programs and pursue an advanced degree in Japan.

With a diverse group of academic departments participating in this program, students should be able to find a department in which to further their research, acquire broader knowledge and understanding, and conduct advanced long-term research in a field that best matches their interests and background.

There is no Japanese language requirement for this program as lectures and seminars are held in English. However, students are given opportunities to attend Japanese language classes on a regular basis in order to better adapt to daily life in Japan.

## **2. Program**

This recruitment prospectus is effective for the master's and doctoral programs scheduled to begin in October 2015.

### **1) Master's Program**

Students enrolled in the master's degree program are expected to successfully complete their supervised studies within two years. To attain the master's degree, students need to earn a designated number of credits outlined by the department in a predetermined program of study; complete and receive approval of a research thesis; and, pass a comprehensive final examination. Students who demonstrate outstanding academic performance during the program may be able to reduce their period of study.

### **2) Doctoral Program**

Students enrolled in the doctoral degree program are expected to successfully complete their supervised study within three years. To attain the doctoral degree, students need to earn a designated number of credits outlined by their department in a predetermined program of study; complete and receive approval of their research thesis; and, pass a comprehensive final examination. Students who demonstrate outstanding academic and research performance during the program may be able to reduce their period of study.

## List of Departments & Programs

| Graduate School  | Department   | Master's Program | Doctoral Program |
|--|--|------------------|------------------|
| Graduate School of Science and Engineering                   | Mathematics  |                  | ○                |
|  | Physics (Particle-, Nuclear-, and Astro-Physics)                           | ○                | ○                |
|  | Physics (Condensed Matter Physics)   | ○                | ○                |
|  | Chemistry  |                  | ○                |
|  | Earth and Planetary Sciences   |                  | ○                |
|  | Chemistry and Materials Science  |                  | ○                |
|  | Metallurgy and Ceramics Science  | ○                | ○                |
|  | Organic and Polymeric Materials  | ○                | ○                |
|  | Chemical Engineering   | ○                | ○                |
|  | Mechanical Sciences and Engineering  | ○                | ○                |
|  | Mechanical and Control Engineering   | ○                | ○                |
|  | Mechanical and Aerospace Engineering                                       | ○                | ○                |
|  | Electrical and Electronic Engineering                                      | ○                | ○                |
|  | Physical Electronics   | ○                | ○                |
|  | Communications and Computer Engineering                                    |                  | ○                |
|  | Civil Engineering  | ○                | ○                |
|  | Architecture and Building Engineering                                      | ○                |                  |
|  | International Development Engineering                                      | ○                | ○                |
| Nuclear Engineering  | ○  | ○                |                  |
| Graduate School of Bioscience and Biotechnology              | Life Science   | ○                | ○                |
|  | Biological Sciences  | ○                | ○                |
|  | Biological Information   | ○                | ○                |
|  | Bioengineering   | ○                | ○                |
|  | Biomolecular Engineering   | ○                | ○                |
| Interdisciplinary Graduate School of Science and Engineering | Innovative and Engineered Materials  | ○                | ○                |
|  | Electronic Chemistry   | ○                | ○                |
|  | Materials Science and Engineering  | ○                | ○                |
|  | Environmental Science and Technology                                       | ○                | ○                |
|  | Built Environment  | ○                | ○                |
|  | Energy Sciences  | ○                | ○                |
|  | Environmental Chemistry and Engineering                                    | ○                | ○                |
|  | Electronics and Applied Physics  | ○                | ○                |
|  | Mechano-Micro Engineering  |                  | ○                |
|  | Computational Intelligence and Systems Science                             | ○                | ○                |
|  | Information Processing   | ○                | ○                |
| Graduate School of Information Science and Engineering       | Mathematical and Computing Sciences  |                  | ○                |
|  | Mechanical and Environmental Informatics (Mechano-Informatics Group)       | ○                | ○                |
|  | Mechanical and Environmental Informatics (Environmental Informatics Group) | ○                | ○                |
| Graduate School of Decision Science and Technology           | Value and Decision Science   | ○                | ○                |
|  | Social Engineering   | ○                | ○                |

The mark “○” in the chart indicates the departmental programs offered to which applicants can apply.

### 3. Eligibility

Applicants who are living in Japan at the time of application and who satisfy one of the following conditions are eligible to apply.

Japanese citizens who are residing in Japan, satisfy the following conditions and have obtained a degree at universities outside Japan may also apply for this program.

#### 1) Master's Program

- (1) Persons who are graduates of a university or college or who will graduate from a university or college on or before September 30, 2015.
- (2) Persons who were awarded a bachelor's degree according to Article 104, Paragraph 4 of the School Education Law of Japan (Law 26, 1947) or who are expected to do so on or before September 30, 2015.
- (3) Persons who have successfully completed in 16-years education abroad or who are expected to do so on or before September 30, 2015.
- (4) Persons who have taken the correspondence course of an overseas educational institution in Japan and completed in total 16-years education or who are expected to do so on or before September 30, 2015.
- (5) Persons who have successfully completed an undergraduate course of study or who are expected to do so on or before September 30, 2015, at an educational institution abroad, for a total of 16 years of formal education including 4 years that are assessed in Japan to have been at the university level, and specifically designated by the Minister of Education, Culture, Sports, Science and Technology of Japan (Hereafter referred to as the "Ministry").
- (6) Persons who have successfully completed, or who are expected to complete, after the date designated by the Ministry, specialized courses specifically designated by the Minister at a vocational school. The minimum period required for graduation from a vocational school is four years or longer. Other conditions specified by the Minister should have been met.
- (7) Persons deemed eligible by the Minister.
- (8) Persons who have spent three years or more at a university, or who have successfully completed a 15-year education abroad, or who have completed an undergraduate course of study in an educational institution abroad, for a total of 15 years of formal education, the last 3 years which is assessed in Japan to have been at the university level, and specifically designated by the Minister, and who are recognized by Tokyo Tech as having obtained the designated credits with excellent results.
- (9) Persons who are recognized by Tokyo Tech Graduate School as having equal or higher academic ability than persons who are graduates of a university or college and will be 22 years of age on or before September 30, 2015.
- (10) Persons from a foreign country in which the completion of college level education does not require 16 years of formal education, who satisfy the following two conditions, and who are recognized by Tokyo Tech Graduate School as having academic ability equal to or higher than graduates of a Japanese university.
  - a. Persons who have spent one year or more as a research student or research fellow at a university or research institution in Japan or abroad after successfully obtaining a bachelor's degree or who are expected to do so by the end of September 30, 2015.
  - b. Persons who will be 22 years of age on or before September 30, 2015.

## 2) Doctoral Program

- (1) Persons who hold a master's or professional degree, or who can be expected to have such a degree by September 30, 2015.
- (2) Persons who have received an academic degree equivalent to a master's or professional degree in a country other than Japan, or who can be expected to receive such a degree by September 30, 2015.
- (3) Persons who have completed a course of study in Japan under a program of education by correspondence offered by a school in a country other than Japan and who have received an academic degree equivalent to a master's or professional degree or who can be expected to receive such a degree by September 30, 2015.
- (4) Persons who have received an academic degree equivalent to a master's or professional degree upon completion in Japan of a course of study that is separately designated for that purpose by the Minister and that is conducted at an educational institution possessing a school for graduate study belonging to the educational system of a country other than Japan, or who can be expected to receive such a degree by September 30, 2015.
- (5) Persons who have completed postgraduate programs and received a degree equivalent to a master's degree from United Nations University or those who can be expected to have such a degree by September 30, 2015.
- (6) Persons designated by the Minister:
  - (a) Persons who have graduated from a university, and have engaged in research for two or more years at a university, research institute, or other such institution, and who have been recognized by the Tokyo Tech Graduate School as possessing academic achievements on an equal or higher level than holders of a master's or professional degree for equivalent research or other such results achieved.
  - (b) Persons who have completed 16 years of formal education in a country other than Japan, or who have completed a course of study in Japan under a program of education by correspondence offered by a school abroad and have thereby completed the equivalent of 16 years of education in that country, who have subsequently engaged in research for two or more years at a university, research institute, or other such institution, and who have been recognized by the Tokyo Tech Graduate School as possessing academic achievements on an equal or higher level than holders of a master's or professional degree for equivalent research or other such results achieved.
- (7) Persons who have been recognized by the Tokyo Tech Graduate School in respect of their eligibility for admission as possessing academic achievements on an equal or higher level than holders of a master's or professional degree, and who will reach the age of 24 by September 30, 2015.

Individual Assessment of Admission Eligibility is required for applicants who fall under eligibility conditions (8), (9) or (10) for the master's program, or eligibility condition (6) or (7) for the doctoral program. Applicants are requested to submit the Application for Individual Assessment of Admission Eligibility with any other necessary documents to the Admission Division by 17:00 on May 27, 2015. If sent by post, documents should reach the Admission Division by May 27, 2015.

Notification of Individual Assessment results will be posted around June 4, 2015.

Applicants who have satisfied the requirements of the Individual Assessment of Admission Eligibility must submit this Notification with the other application documents listed below during the application period.

Note:

- 1) Applicants who are Japanese citizens should consult the Admission Division before applying.
- 2) The admission of applicants expecting to graduate from a university or college will be revoked should the applicant fail to successfully graduate or obtain a master's or professional degree by September 30, 2015.

## 4. Application Procedures

Prior to submitting the application materials to the Admission Division, applicants must arrange for a Tokyo Tech faculty member to serve as an academic advisor. In order to be considered for admissions, applicants must first find an academic advisor. Applicants are required to communicate directly with their intended academic advisor at Tokyo Tech and obtain the consent of the desired faculty member to serve in this capacity.

Applicants need to directly contact, via email, the intended academic advisor from the attached List of Faculties and provide a self-introductory statement and an account of their intentions period of study at Tokyo Tech. Applications will not be considered without the consent of a Tokyo Tech faculty member who would act as academic advisor.

For further information on faculty members, such as email addresses and contact information, please refer to the “STAR Search” (database of researchers) on the Tokyo Tech homepage. Some academic advisors may require the submission of additional documents before the stated deadline.

### Application Requirements

| No. | Required Documents  |
|-----|---|
| 1   | <u>Application Form (attached form)</u> (original, no photocopies)  |
| 2   | <u>Photograph Card, Admission Card (attached form)</u>  |
| 3   | <p><u>Application fee</u><br/>Please use the supplied payment slip to remit 30,000 yen at your post office or bank (no remittance fee will be charged if payments are made at Sumitomo Mitsui Bank). Please paste the post office receipt for your payment (in Japanese, "振替払込受付証明書[お客さま用]furikaeharaikomiuketsushomeisho[okyakusamayo]") onto the designated section of your application form.</p> <p>If you are a Japanese government (Monbukagakusho) scholarship student, you are not required to pay this fee. In that case, please submit documents to verify your scholarship status.</p> <p>In the event that natural disasters occurred in regions where applicants or those responsible for their financial support reside, subject to the Disaster Relief Act (Law No. 118, 1947), and subject to a determination relating to financial circumstances, applicants may be eligible for exemption from the entrance examination fee.</p> <p>Following cases may be applicable:</p> <p>i) when a house which those responsible for the applicants' financial support reside is completely collapsed, largely collapsed, half collapsed or washed away, or</p> <p>ii) when those responsible for the applicants' financial support are deceased or disappeared.</p> <p>For further information contact the Admission Division before applying.</p> |
| 4   | <u>Official Academic Transcripts from both undergraduate and graduate schools</u> (original or certified copies)  |
| 5   | <p><u>Certificate of Graduation or Expected Graduation from both undergraduate and graduate schools</u> (original or certified copies)</p> <p>If the applicant is graduating early or has skipped a grade, please submit an official document or letter issued by the school indicating this fact.</p>  |
| 6   | <p><u>Certificate of Residence (juminhyo)</u> or documentation to confirm status of residence and authorized period of stay, such as photocopy of front and back of Resident Card (zairyu card).</p> <p>*However, photocopies of Certificate of Residence are not accepted.</p> <p>For Non-Japanese citizens only.</p>  |

| No. | Required Documents   |
|-----|--|
| 7   | <u>Envelope for mailing Admission Card for Examination</u> (attached form) (Applicant's address, name and postal code should be filled in and 372 yen in stamps affixed) |
| *8  | <u>Summary of Thesis</u> (about 300 words)   |
| *9  | <u>Photocopy of Master's thesis</u>  |

**\*For Documents No.\*8 & \*9: Applies only to doctoral program applicants**

### Other Application Requirements for Certain Categories of Applicants

| No. | Required Documents  |
|-----|---|
| 1   | <p><u>English Proficiency Test Score Report</u><br/>Applicants are required to submit English proficiency test score reports from TOEFL-iBT, TOEFL-PBT, TOEIC or IELTS Academic Module taken on and after June 25, 2013. The kinds of score reports that may be submitted are TOEFL/Examinee Score Reports (Official Score Report sent directly from ETS to the University cannot be used), the TOEIC/Official Score Certificate, and/or the IELTS Academic Module/Test Report Form. Score reports from the Institutional Testing Program of TOEFL and TOEIC (TOEFL-ITP, TOEIC-ITP, TOEIC-IP) or other proficiency tests not specifically listed above will not be accepted.</p> <p>The above applies only to applicants to departments that do not offer a Departmental Examination of English, but which instead request the submission of the English Proficiency Test Score Report. It also applies to applicants to departments that permit exemption from departmental examinations provided that students submit the English Proficiency Test Score Report.<br/>(See “English Proficiency Examinations” on pages 10 &amp; 11)</p>  |
| 2   | <p><u>Application for Individual Assessment of Admission Eligibility</u> (attached form) with the following Supplemental Documents</p> <p><b>1.1) Eligibility (8) for the Master’s Program</b></p> <ul style="list-style-type: none"> <li>• <u>Letter of recommendation from the Dean of home institution</u> (attached form)</li> <li>• <u>Official academic transcripts</u></li> <li>• <u>Certificate of student status</u></li> <li>• <u>Regulations concerning the graduation requirements of the relevant university</u></li> <li>• <u>Photocopy of Application Form</u></li> </ul> <p><b>1.2) Eligibility (9) or (10) for the Master’s Program</b></p> <ul style="list-style-type: none"> <li>• <u>Certificate of enrollment after graduation from university</u></li> <li>• <u>Official academic transcripts</u></li> <li>• <u>Certificate of Graduation</u></li> <li>• <u>Photocopy of Application Form</u></li> </ul> <p><b>2) Eligibility (6) or (7) for the Doctoral Program</b></p> <ul style="list-style-type: none"> <li>• <u>Certificate of Graduation</u></li> <li>• <u>Research Achievements</u> (attached form)</li> <li>• <u>Outline of Research</u></li> <li>• <u>Photocopy of academic papers</u> (persons who have presented them)</li> <li>• <u>Photocopy of Application Form</u></li> </ul> <p>Applies only to applicants who are requesting special admission consideration based on the eligibility conditions (8), (9) or (10) for the master’s program or the eligibility conditions (6) or (7) for the doctoral program.</p> |

## Submission of Application Documents

The completed application documents must reach the Admission Division during the application period indicated below.

**Application Period: June 29, 2015 – July 1, 2015**

### Submission in person at the Counter of the Admission Division

Application documents must be submitted during the hours of 10:00 - 12:00 and 13:00 - 15:00 on weekdays at the Admission Division, Tokyo Institute of Technology (Ookayama Campus). Applications will not be accepted at any other time.

### Submission by Post

Application documents must be sent by registered express mail. Please write the following on the envelope in red ink: "Application for International Graduate Program." Send to the address below, so as to arrive no later than July 1, 2015.

Mailing Address: Admission Division  
Student Services Department  
TOKYO INSTITUTE OF TECHNOLOGY  
2-12-1-W8-103 Ookayama, Meguro-ku, Tokyo 152-8550

〒152-8550  
東京都目黒区大岡山 2-12-1-W8-103  
東京工業大学学務部入試課大学院入試グループ

Note:

- 1) **An Admission Card for Examination will be sent by post around August 7, 2015.** If you don't receive this card by August 13, 2015, please contact the Admission Division ( phone number 03-5734-3990, between 9:00 - 12:15 and 13:15 - 17:15 on weekdays).
- 2) Tokyo Tech will not accept any documents received after the stated deadline or any incomplete applications.
- 3) Original certificates must be submitted.
- 4) Submitted documents cannot be changed after completing the application.
- 5) Submitted documents will not be returned under any circumstances. Please keep a copy of all documents for your own reference.
- 6) Offers of admission may be withdrawn at any time, even after enrollment, if the application documents are found to be invalid or containing any false information.



## **5. Admission Decision**

**Examination period: August 17, 2015 - August 22, 2015**

Applicants will be informed of the date, time and place of the examination when the Admission Card for Examination is sent, around August 7, 2015.

### **Examination Subjects**

#### **1) Master's Program**

Decisions regarding successful applicants for the master's program are based on the results of an interview and academic records, or are based on the results of examination of English proficiency, written examinations on specialized subjects, an oral examination and academic records. For more information about the examination, please contact the department being applied to.

#### **2) Doctoral Program**

Decisions regarding successful applicants for the doctoral program are based on the results of examinations of English proficiency, an interview on the master's thesis (or research achievements), an academic examination and an oral examination.

### **Examination of English Proficiency**

The examination of English proficiency differs among the departments. Applicants should refer to "English Proficiency Examinations" on pages 10 & 11.

It is possible that native English speakers or students who have been awarded an \*undergraduate and/or graduate degree\* from an institution where all instruction was in English may not be required to submit English proficiency test scores. Such applicants should consult with their intended academic advisor prior to submission of the application form to verify that they are waived from this application requirement. Whether or not an applicant needs to provide English proficiency test score reports will be determined by the academic advisor's department. (and not automatically waived).

\*Undergraduate and graduate degrees should be equivalent to the Japanese educational definitions of undergraduate, master's and doctoral program degrees.

### **Announcement of Successful Applicants**

Notices will be posted on the bulletin board around "Nagominohiroba" on the Ookayama Campus at noon on September 14, 2015, and successful applicants will also be informed by mail.

A pdf version of the list of successful applicants will be also made available on the university website around 13:00 on September 14, 2015.

## 6. Admissions Procedures

Admissions Procedures will take place at this university (either on the Ookayama Campus or on the Suzukakedai Campus) either on September 28, 2015 or September 29, 2015. Details will be provided when documents are issued to the academic advisors of successful applicants.

Those admitted to the master's and doctoral program will be required to pay the following fees.

|                      |                |
|----------------------|----------------|
| Admission Fee        | ¥282,000 (JPY) |
| Tuition Fee (yearly) | ¥535,800 (JPY) |

(The admission and tuition fees are subject to change.)

### Teaching or Research Assistantship for Doctoral Program

In an effort to ease the financial burden incurred by doctoral students, Tokyo Tech has established a Teaching and Research Assistantship (TRA) which covers the tuition fees. Doctoral students who have enrolled and paid the aforementioned fees may be eligible to apply for financial aid through a Teaching and Research Assistantship that provide a sum equivalent to their tuition fees.

## 7. Note

- 1) Applicants are required to bring the Admission Card for Examination when taking the Examinations.
- 2) Information in the application document is used only for the entrance examination and business related to the entrance exam.
- 3) Once the application fee has been paid, it will not be returned for any reason after the application has been received.
- 4) Information on finding accommodation for applicants is not available from the Admissions Division. (The Co-op at Tokyo Tech may be of service. Please inquire for details on the website of The Co-op at Tokyo Tech <http://www.univcoop/titech/> or on phone 03-3728-8023.)
- 5) Applicants should be aware that the latest information regarding application selection and related matters is made available on the university website.
- 6) This does not apply to applicants who are scheduled to advance to the doctoral program while presently enrolled in a master's program at this university (candidates for in-house advancement).

## English Proficiency Examinations

Applicants can find their intended department from List 1 or 2, and consult with their intended academic advisor for details.

### 1) Departments offering English proficiency examinations

The following departments offer an examination of English proficiency. However some departments permit exemption from the departmental examination provided that applicants submit a score report for the TOEFL-iBT, TOEFL-PBT, TOEIC or IELTS Academic Module (Original), along with other application documents during the application period.

| Department  | Type of Examination                            | Exemption  |
|---|--|--|
| ◇Chemistry and Materials Science<br>◇Organic and Polymeric Materials* | Comprehension and writing of scientific papers | TOEFL iBT score 79,<br>TOEFL PBT score 550,<br>TOEIC score 730,<br>IELTS score 6.5 or higher |
| ◇Bioengineering   |  | TOEFL iBT score 80,<br>TOEFL PBT score 550,<br>TOEIC score 730,<br>IELTS score 6.5 or higher |
| ◇Environmental Chemistry and Engineering                              |  | N/A  |
| ◇Value and Decision Science   | General comprehension and writing              | TOEFL iBT score 88,<br>TOEFL PBT score 570,<br>TOEIC score 787,<br>IELTS score 7 or higher   |
| ◇Mathematics  | Oral presentation                              | N/A  |

\*Applicants can choose one from a) Taking the departmental examination, b) Submitting the English proficiency test score report and c) Both a) Taking the departmental examination & b) Submitting the English proficiency test score report. For details, applicants should contact Professor Takehiko Mori, E-mail: [mori.t.ae@m.titech.ac.jp](mailto:mori.t.ae@m.titech.ac.jp).

## 2) Departments not offering a departmental examination of English

The following departments will not offer departmental examinations but instead request the submission of TOEFL-iBT, TOEFL-PBT, TOEIC or IELTS Academic Module English proficiency test scores.

| Department   | Type of Score report                            | Submission Methods   |
|--|---|--|
| <ul style="list-style-type: none"> <li>◇Chemistry</li> <li>◇Earth and Planetary Sciences</li> <li>◇Chemical Engineering</li> <li>◇Mechanical Sciences and Engineering</li> <li>◇Mechanical and Control Engineering</li> <li>◇Mechanical and Aerospace Engineering</li> <li>◇Civil Engineering</li> <li>◇Nuclear Engineering</li> <li>◇Life Science</li> <li>◇Biological Sciences</li> <li>◇Biomolecular Engineering</li> <li>◇Innovative and Engineered Materials</li> <li>◇Electronic Chemistry</li> <li>◇Materials Science and Engineering</li> <li>◇Built Environment</li> <li>◇Energy Sciences</li> <li>◇Mechano-Micro Engineering</li> <li>◇Mechanical and Environmental Informatics (Mechano-Informatics Group)</li> </ul>   | Original<br>(Photocopy<br>is not<br>acceptable) | Submit with other application documents during the application period. |
| <ul style="list-style-type: none"> <li>◇Physics (Particle, Nuclear and Astro-Physics)</li> <li>◇Physics (Condensed Matter Physics)</li> <li>◇Metallurgy and Ceramics Science</li> <li>◇Electrical and Electronic Engineering</li> <li>◇Physical Electronics</li> <li>◇Communications and Computer Engineering</li> <li>◇Architecture and Building Engineering</li> <li>◇International Development Engineering</li> <li>◇Biological Information</li> <li>◇Environmental Science and Technology</li> <li>◇Electronics and Applied Physics</li> <li>◇Computational Intelligence and Systems Science</li> <li>◇Information Processing</li> <li>◇Mathematical and Computing Sciences</li> <li>◇Mechanical and Environmental Informatics (Environmental Informatics Group)</li> <li>◇Social Engineering</li> </ul> |   |  |

### Note:

As an exception to the above 1) and 2), applicants for the doctoral program may be able to take an oral examination. Applicants should consult with their intended academic advisor in advance.

# List of Faculties

## Tokyo Institute of Technology International Graduate Program (C) 2015

### Graduate School of Science and Engineering

#### (1)Dept. of Mathematics

| ACADEMIC ADVISOR    |                       | RESEARCH FIELD   | REMARKS |
|---------------------|-----------------------|--|---------|
| Professor           | AKUTAGAWA, Kazuo      | Differential geometry, geometric and global analysis     |         |
| Professor           | ENDO, Hisaaki         | Topology   |         |
| Professor           | HONDA, Nobuhiro       | Complex geometry   |         |
| Professor           | KATO, Fumiharu        | Algebraic geometry, Arithmetic geometry                  |         |
| Professor           | NAITO, Satoshi        | Representation theory                                    |         |
| Professor           | SHIGA, Hiroshige      | Complex analysis   |         |
| Professor           | TONEGAWA, Yoshihiro   | Partial differential equations, Geometric measure theory |         |
| Professor           | YAMADA, Kotaro        | Differential geometry                                    |         |
| Professor           | YANAGIDA, Eiji        | Partial differential equations                           |         |
| Professor           | *NISHIBATA, Shinya    | Theory of Partial Differential Equations                 |         |
| Professor           | *SAITO, Shuji         | Arithmetic geometry, Algebraic geometry                  |         |
| Professor           | *UMEHARA, Masaaki     | Differential Geometry                                    |         |
| Associate Professor | HATTORI, Toshiaki     | Geometry   |         |
| Associate Professor | ISOBE, Takeshi        | Geometric analysis, Variational problems                 |         |
| Associate Professor | KALMAN, Tamas         | Topology   |         |
| Associate Professor | KAWAHIRA, Tomoki      | Complex dynamics, Complex analysis                       |         |
| Associate Professor | KUWADA, Kazumasa      | Probability theory, Stochastic analysis                  |         |
| Associate Professor | MA, Shohei            | Algebraic geometry                                       |         |
| Associate Professor | MIZUMOTO, Shin-ichiro | Theory of automorphic forms                              |         |
| Associate Professor | SUZUKI, Masatoshi     | Analytic Number Theory                                   |         |
| Associate Professor | YONEDA, Tsuyoshi      | Partial differential equations, Fluid dynamics           |         |

|                     |                  |  |  |
|---------------------|------------------|--|--|
| Associate Professor | *MIURA, Hideyuki | Theory of Partial differential equations                         |  |
| Associate Professor | *TERASHIMA, Yuji | Differential topology, Mathematical physics, Arithmetic topology |  |

\* indicates person who belongs to other department.

## (2)Dept. of Physics (Particle-, Nuclear-, and Astro-Physics)

| ACADEMIC ADVISOR            |                     | RESEARCH FIELD                            | REMARKS |
|-----------------------------|---------------------|---|---------|
| Professor                   | OKA, Makoto         | Nuclear and Hadron Physics (Theory)       |         |
| Professor                   | ITO, Katsushi       | Particle Physics (Theory)                 |         |
| Professor                   | KAWAI, Nobuyuki     | Astrophysics (Experiment)                 |         |
| Professor                   | SHIBATA, Toshi-Aki  | Particle and Hadron Physics (Experiment)  |         |
| Professor                   | NAKAMURA, Takashi   | Nuclear Physics (Experiment)              |         |
| Associate Professor         | IMAMURA, Yosuke     | Particle Physics (Theory)                 |         |
| Professor                   | YAMAGUCHI, Masahide | Cosmology and Astrophysics(Theory)        |         |
| Associate Professor         | KUZE, Masahiro      | Particle Physics (Experiment)             |         |
| Associate Professor         | JINNOUCHI, Osamu    | High Energy Particle Physics (Experiment) |         |
| Associate Professor         | SOMIYA, Kentaro     | Gravitational Wave Detector               |         |
| Adjunct Professor           | *DOTANI, Tadayasu   | X-ray Astronomy (Experiment)              | JAXA    |
| Adjunct Professor           | *MATSUHARA, Hideo   | Infrared Astronomy (Experiment)           | JAXA    |
| Adjunct Associate Professor | *HIYAMA, Emiko      | Nuclear Physics (Theory)                  | Riken   |

\* indicates person who belongs to other department.

## (3)Dept. of Physics (Condensed Matter Physics)

| ACADEMIC ADVISOR |                      | RESEARCH FIELD   | REMARKS |
|------------------|----------------------|--|---------|
| Professor        | NISHIMORI, Hidetoshi | Statistical physics, Spin glasses  |         |
| Professor        | SAITO, Susumu        | Theoretical Condensed Matter Physics                                       |         |
| Professor        | YOSHINO, Junji       | Surface science, semiconductor spintronics                                 |         |
| Professor        | TANAKA, Hidekazu     | Magnetism, quantum spin system, frustrated magnets, low-dimensional magnet |         |
| Professor        | FUJISAWA, Toshimasa  | Electron dynamics in semiconductor nanostructures                          |         |

|                     |                      |   |  |
|---------------------|----------------------|---|--|
| Professor           | *HIRAYAMA, Hiroyuki  | Surface & Interface Physics   |  |
| Professor           | *MUNEKATA, Hiro      | Spin-photonics, Experimental condensed matter physics                                 |  |
| Professor           | *NOTOMI, Masaya      | Photonic Nanostructure research   |  |
| Professor           | *HASHIZUME, Tomihiro | Surface and interface physics, nanoscale materials physics and device applications    |  |
| Professor           | MURAKAMI, Shuichi    | Theoretical Condensed Matter Physics, spintronics, geometrical phases                 |  |
| Professor           | KOZUMA, Mikio        | Quantum optics, Laser cooling, Bose Einstein condensation                             |  |
| Associate Professor | KOGA, Akihisa        | Strongly correlated electron systems  |  |
| Associate Professor | NISHIDA, Yusuke      | Theoretical Quantum Physics, Ultracold Atoms  |  |
| Associate Professor | SASAMOTO, Tomohiro   | Statistical physics   |  |
| Professor           | IZAWA, Koichi        | Unconventional superconductivity, strongly correlated electron systems                |  |
| Associate Professor | KANAMORI, Hideto     | Cold molecules, High-resolution spectroscopy of molecules                             |  |
| Associate Professor | MATSUSHITA, Michio   | Optical spectroscopy of single proteins   |  |
| Professor           | OKUMA, Satoshi       | Low Temperature Physics, Superconductivity  |  |
| Associate Professor | HIRAHARA, Toru       | Surface Physics, Nano / spin-Science  |  |
| Associate Professor | AIKAWA, Kiyotaka     | Atomic and molecular physics, Quantum optics, Laser cooling                           |  |
| Associate Professor | TAKEUCHI, Kazumasa   | Critical phenomena and dynamics of non-equilibrium systems, Liquid-crystal turbulence |  |

\* indicates person who belongs to other department.

#### (4)Dept. of Chemistry

| ACADEMIC ADVISOR |                     | RESEARCH FIELD                             | REMARKS |
|------------------|---------------------|--|---------|
| Professor        | ISHITANI, Osamu     | Photochemistry                             |         |
| Professor        | KAWAGUCHI, Hiroyuki | Coordination Chemistry                     |         |
| Professor        | KOUCHI, Noriyuki    | Physical Chemistry on Elementary Processes |         |
| Professor        | KIGUCHI, Manabu     | Surface Chemistry                          |         |
| Professor        | OHSHIMA, Yasuhiro   | Physical Chemistry, Laser Science          |         |
| Professor        | SUZUKI, Keisuke     | Organic Chemistry                          |         |
| Professor        | IWASAWA, Nobuharu   | Organic Chemistry                          |         |

|                     |                   |   |  |
|---------------------|-------------------|---|--|
| Professor           | GOTO, Kei         | Organic Chemistry                             |  |
| Professor           | OKADA, Tetsuo     | Analytical Chemistry                          |  |
| Professor           | NOGAMI, Kenji     | Geochemistry, Volcanology                     |  |
| Associate Professor | MAEDA, Kazuhiko   | Inorganic Materials Chemistry, Photocatalysis |  |
| Associate Professor | HIBARA, Akihiko   | Analytical Chemistry                          |  |
| Associate Professor | KITAJIMA, Masashi | Physical Chemistry                            |  |
| Associate Professor | KAWAI, Akio       | Photochemistry, Laser spectroscopy            |  |
| Associate Professor | OHMORI, Ken       | Organic Chemistry                             |  |
| Associate Professor | TAKAYA, Jun       | Organic Chemistry                             |  |
| Associate Professor | IHARA, Manabu     | Electrochemistry, Energy conversion           |  |
| Associate Professor | KUDO, Fumitaka    | Bioorganic Chemistry                          |  |
| Associate Professor | TERADA, Akihiko   | Volcanology                                   |  |

#### (5)Dept. of Earth and Planetary Sciences

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD  | REMARKS |
|---------------------|-------------------|---|---------|
| Professor           | *HIROSE, Kei      | High-Pressure Earth Science, Origin of the Earth                      |         |
| Professor           | *IDA, Shigeru     | Planetary Formation, Numerical Simulation                             |         |
| Professor           | TSUNAKAWA, Hideo  | Geo- and Planetary Magnetism  |         |
| Professor           | NAKAMOTO, Taishi  | Astrophysics, Planetary Formation                                     |         |
| Professor           | *OGAWA, Yasuo     | Geomagnetism, Volcanology, Seismology                                 |         |
| Professor           | *IWAMORI, Hikaru  | Solid Earth Geochemistry  |         |
| Associate Professor | NOMURA, Hideko    | Planetary System Formation Theory, Interstellar Physics and Chemistry |         |
| Associate Professor | SATO, Bunei       | Observational Astronomy, Exoplanets                                   |         |
| Associate Professor | UENO, Yuichiro    | Geology, Biogeochemistry  |         |
| Associate Professor | YOKOYAMA, Tetsuya | Geochemistry, Cosmochemistry  |         |
| Associate Professor | *KANDA, Wataru    | Physical Volcanology, Geomagnetism                                    |         |



|                     |                    |   |  |
|---------------------|--------------------|---|--|
| Associate Professor | *KITAMURA, Yoshimi | Radio and Infrared Astronomy                                      |  |
| Lecturer            | OHTA, Kenji        | Study of the Earth's Deep Interior, High-Pressure Mineral Physics |  |

\* indicates person who belongs to other department.

### (6)Dept. of Chemistry and Materials Science

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD   | REMARKS |
|---------------------|--------------------|--|---------|
| Professor           | EGUCHI, Tadashi    | Natural Product Chemistry, Bioorganic Chemistry, Biochemistry  |         |
| Professor           | KOSHIHARA, Shinya  | Photo-induced Cooperative Phenomena, Optical Properties of Solids  |         |
| Professor           | KOMATSU, Takayuki  | Catalytic Chemistry  |         |
| Professor           | YASHIMA, Masatomo  | Materials Science, Crystallography, Solid State Chemistry & Physics, Solid State Ionics, Crystal Structure Analysis, New Inorganic Materials |         |
| Professor           | TOYOTA, Shinji     | Physical Organic Chemistry   |         |
| Professor           | ANDO, Shinji       | Structures and Physical Properties of Solid State Polymeric Materials  |         |
| Professor           | OUGIZAWA, Toshiaki | Physical Chemistry of Polymeric Materials  |         |
| Professor           | NISHIKATA, Atsushi | Metallurgical Electrochemistry, High Temperature Electrochemistry, Corrosion   |         |
| Professor           | YAMANAKA, Ichiro   | Electrochemistry, Oxidation Chemistry  |         |
| Professor           | YANO, Tetsuji      | Inorganic Glasses, Ion-Dynamics and Optical Properties   |         |
| Associate Professor | UEKUSA, Hidehiro   | Chemical Crystallography, Organic Crystal Chemistry  |         |
| Associate Professor | OKIMOTO, Yoichi    | Optical Spectroscopy of Solids   |         |
| Associate Professor | SATOH, Mitsuru     | Physical Chemistry of Polymer and Aqueous Systems  |         |
| Associate Professor | ASAI, Shigeo       | Physical Properties of Organic Materials, Polymer Composites   |         |
| Associate Professor | TADA, Eiji         | Corrosion and Environmental Degradation of Materials   |         |

### (7a)Dept. of Metallurgy and Ceramics Science (Metallurgy Group)

| ACADEMIC ADVISOR |                  | RESEARCH FIELD   | REMARKS |
|------------------|------------------|--|---------|
| Professor        | NAKAMURA, Yoshio | Applied Diffraction Crystallography, Nano-Structured Materials |         |
| Professor        | SHI, Ji          | Physical Properties of Metals, Magnetic Thin Films             |         |
| Professor        | FUJII, Toshiyuki | Crystallography of Microstructures                             |         |

|                     |                     |   |  |
|---------------------|---------------------|---|--|
| Professor           | SUSA, Masahiro      | Physical Chemistry of Metals, Materials Metrology   |  |
| Professor           | TAKEYAMA, Masao     | Physical Metallurgy of Intermetallic and Ferrous Materials, Phase Transformations of Alloys, Deformation in Solid           |  |
| Professor           | KUMAI, Shinji       | Mechanical Metallurgy, Fatigue, Joining and Solidification  |  |
| Professor           | *NISHIKATA, Atsushi | Metallurgical Electrochemistry, High Temperature Electrochemistry, Corrosion  |  |
| Professor           | *ONAKA, Susumu      | Mechanical Properties of Materials  |  |
| Professor           | *KAJIHARA, Masanori | Thermodynamics and Kinetics   |  |
| Professor           | *HOSODA, Hideki     | Materials Design, Shape Memory Alloys, Intermetallic Compounds  |  |
| Associate Professor | KAWAMURA, Kenichi   | High Temperature Physical Chemistry, Solid State Ionics   |  |
| Associate Professor | KOBAYASHI, Equo     | Physical Metallurgy of Non-ferrous Metals and Intermetallics, Design and Evaluation of Biomedical Materials                 |  |
| Associate Professor | HAYASHI, Miyuki     | Thermophysical Properties of Materials, High Temperature Process Control  |  |
| Associate Professor | UEDA, Mitsutoshi    | High Temperature Oxidation of Metals, Defect Chemistry in Oxides, Physical Chemistry at High Temperature                    |  |
| Associate Professor | KOBAYASHI, Satoru   | Phase diagrams and phase transformations in alloys, Physical metallurgy of ferrous alloys, Heat resistant steels and alloys |  |
| Associate Professor | MURAIISHI, Shinji   | Micromechanics, Nanostructured Material, Crystal Defects  |  |
| Associate Professor | *TADA, Eiji         | Corrosion and Environmental Degradation of Materials  |  |
| Associate Professor | *SONE, Masato       | Micro/Nano Materials Engineering & Science  |  |
| Associate Professor | *KIMURA, Yoshisato  | Microstructure Control and Characterization of Intermetallic Alloys   |  |
| Associate Professor | *TERADA, Yoshihiro  | Microstructure Control, Mechanical Properties, Heat-Resistant Materials   |  |
| Associate Professor | *NAKADA, Nobuo      | Microstructure and Mechanical Properties of Iron and Steels   |  |
| Associate Professor | *INAMURA, Tomonari  | Shape Memory Alloy, Crystallography of Phase Transformation   |  |
| Associate Professor | *SANNOMIYA, Takumi  | Functional Nanomaterials, Plasmonics, Electron Microscopy   |  |

\* indicates person who belongs to other department.

**(7b)Dept. of Metallurgy and Ceramics Science (Ceramics Group)**

| ACADEMIC ADVISOR    |                     | RESEARCH FIELD   | REMARKS               |
|---------------------|---------------------|--|-----------------------|
| Professor           | NAKAJIMA, Akira     | Environmental Ceramics, Surface Functional Materials   |                       |
| Associate Professor | IKOMA, Toshiyuki    | Bioceramics, Biosensing, Nanomedicine, Tissue Engineering  |                       |
| Associate Professor | TAKEDA, Hiroaki     | Electroceramics, Crystal Growth of Functional materials  |                       |
| Associate Professor | MIYAUCHI, Masahiro  | Photo-electrochemistry, Photocatalysis, Chemical Synthesis of Nanoparticles                                  |                       |
| Associate Professor | MATSUSHITA, Sachiko | Top-Down and Bottom-Up Fabrication of Nanomaterials, Near-Field Optics                                       |                       |
| Professor           | *YANO, Toyohiko     | Processing and Characterization of Engineered Ceramics, Ceramic Matrix Composites, Nuclear Reactor Materials | Master's program only |

\*indicates person who belongs to other department.

**(8a)Dept. of Organic and Polymeric Materials (Chemistry Group)**

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD  | REMARKS |
|---------------------|-------------------|---|---------|
| Professor           | TAKATA, Toshikazu | Supramolecular Chemistry, Synthetic Polymer Chemistry                                 |         |
| Professor           | SERIZAWA, Takeshi | Biomacromolecular Chemistry, Biomaterials Science and Engineering, Molecular Assembly |         |
| Associate Professor | SAITO, Reiko      | Polymer Synthesis, Template Polymerization, Organic-inorganic Composites              |         |
| Professor           | ISHIZONE, Takashi | Polymer Synthesis, Living Polymerization  |         |
| Professor           | OTSUKA, Hideyuki  | Polymer Reactions, Smart Polymeric Materials, Polymer Synthesis                       |         |
| Associate Professor | KONISHI, Gen-ichi | Polymer Synthesis, Photochemistry   |         |

**(8b)Dept. of Organic and Polymeric Materials (Materials Group)**

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD  | REMARKS |
|---------------------|-------------------|---|---------|
| Professor           | KIKUTANI, Takeshi | Fiber and Polymer Processing, Physical Properties of Polymers |         |
| Professor           | TEZUKA, Yasuyuki  | Synthetic Polymer Chemistry                                   |         |
| Professor           | MORI, Takehiko    | Physical Chemistry of Organic Materials                       |         |
| Professor           | OUCHI, Yukio      | Physical Chemistry  |         |
| Professor           | MORIKAWA, Junko   | Polymer Processing, Thermal Properties of Polymers            |         |
| Associate Professor | ISHIKAWA, Ken     | Optical and Electrical Properties of Organic Materials        |         |

|                     |                      |  |  |
|---------------------|----------------------|--|--|
| Associate Professor | SHIOYA, Masatoshi    | Polymer Composites, Mechanical Properties, Carbon Materials  |  |
| Associate Professor | HAYAKAWA, Teruaki    | Polymer Synthesis, Self-Organizing Polymeric Materials       |  |
| Professor           | VACHA, Martin        | Optical Properties of Organic Materials                      |  |
| Associate Professor | MICHINOBU, Tsuyoshi  | Polymer Synthesis, Semiconducting Polymers                   |  |
| Associate Professor | MATSUMOTO, Hidetoshi | Nano-micro Fabrication, Energy Conversion Materials          |  |
| Associate Professor | HAYAMIZU, Yuhei      | Bio-interface, Nano Materials                                |  |
| Professor           | *OUGIZAWA, Toshiaki  | Physical Chemistry of Polymeric Materials                    |  |
| Associate Professor | *ASAI, Shigeo        | Physical Properties of Organic Materials, Polymer Composites |  |

\*indicates person who belongs to other department.

### (9)Dept. of Chemical Engineering

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD  | REMARKS |
|---------------------|----------------------|---|---------|
| Professor           | ITO, Akira           | Separation Processes, Membrane separation   |         |
| Professor           | KUBOUCHI, Masatoshi  | Polymeric Materials for Chemical Plant, Composite Materials, Material Science                       |         |
| Professor           | SEKIGUCHI, Hidetoshi | Plasma Processing, Thermo-chemical Engineering  |         |
| Professor           | OKOCHI, Mina         | Biotechnology, Biochemical Engineering, Peptide Engineering   |         |
| Professor           | TAGO, Teruoki        | Reaction Engineering, Catalytic Reaction Engineering, Catalyst, Resource Chemical Process           |         |
| Associate Professor | TANIGUCHI, Izumi     | Aerosol Science and Technology, Powder Technology, Functional Material Processing, Energy Materials |         |
| Associate Professor | FUCHINO, Tetsuo      | Process Systems Engineering, Product Management   |         |
| Associate Professor | YOSHIKAWA, Shiro     | Fluid Dynamics, Transport Phenomena   |         |
| Associate Professor | MORI, Shinsuke       | Plasma Processing, Heat Transfer  |         |
| Associate Professor | SHIMOYAMA, Yusuke    | Thermodynamic property, Mass transfer   |         |
| Associate Professor | AOKI, Saiko          | Tribology, Surface Engineering  |         |
| Associate Professor | OOKAWARA, Shinichi   | Microfluidic Transport Phenomena, CFD (Computational Fluid Dynamics), Microreactor                  |         |

**(10)Dept. of Mechanical Sciences and Engineering**

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD  | REMARKS |
|---------------------|----------------------|---|---------|
| Professor           | NOZAKI , Tomohiro    | Plasma Materials Science, Reaction Engineering, Thermal Engineering |         |
| Professor           | INOUE, Takayoshi     | Microscale Thermal Engineering                                      |         |
| Professor           | IWATSUKI, Nobuyuki   | Human Friendly Systems, Silent Engineering                          |         |
| Professor           | TAKAHARA, Hiroki     | Structural Dynamics   |         |
| Professor           | TAKEDA, Yukio        | Mechanical Systems Design   |         |
| Professor           | OHTAKE, Naoto        | Manufacturing Science and Technology                                |         |
| Professor           | HIRATA, Atsushi      | Surface Engineering   |         |
| Professor           | KISHIMOTO Kikuo      | Solids and Structures Engineering                                   |         |
| Professor           | TODOROKI, Akira      | Solids and Structures Engineering                                   |         |
| Professor           | CROSS, Jeffrey Scott | Japan's Energy Mix and Biomass Engineering                          |         |
| Professor           | KIKUCHI, Masao       | Materials Engineering   |         |
| Associate Professor | OKAWA, Seiji         | Thermal Science and Engineering                                     |         |
| Associate Professor | OSHIMA, Shuzo        | Fluid Science and Engineering                                       |         |
| Associate Professor | MURAKAMI, Yoichi     | Energy and Thermal Engineering                                      |         |
| Associate Professor | OKADA, Masafumi      | Robotics, Control Engineering                                       |         |
| Associate Professor | NAKANO, Yutaka       | Vibration Engineering   |         |
| Associate Professor | AKASAKA, Hiroki      | Synthesis and Evaluation of Inorganic Carbon Materials              |         |
| Associate Professor | INABA, Kazuaki       | Continuum Mechanics   |         |
| Associate Professor | MIZUTANI, Yoshihiro  | Structural Reliability Engineering                                  |         |
| Associate Professor | MOUGENOT, Celine     | Design Engineering  |         |
| Associate Professor | YOSHIDA, Takako      | Applied Brain Science   |         |
| Associate Professor | TANAKA, Shinji       | Tribology   |         |

**(11)Dept. of Mechanical and Control Engineering**

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD  | REMARKS |
|---------------------|----------------------|---|---------|
| Professor           | NAKAMURA, Haruo      | Fracture Mechanics, Strength of Materials                         |         |
| Professor           | YOSHINO, Masahiko    | Nano/micro Manufacturing  |         |
| Professor           | INOUE, Hirotsugu     | Mechanics of Materials, Non-destructive Testing                   |         |
| Professor           | SATOH, Isao          | Energy Applications   |         |
| Professor           | YAMAURA, Hiroshi     | Mechatronics, Dynamics, Control                                   |         |
| Professor           | INOUE, Norio         | Biomechanics  |         |
| Professor           | HACHIYA, Hiroyuki    | Ultrasonic Measurements, Acoustic Imaging                         |         |
| Professor           | OKUTOMI, Masatoshi   | Computer Vision, Image Processing                                 |         |
| Professor           | KURABAYASHI, Daisuke | Biorobotic systems, Distributed systems,<br>Motion planning       |         |
| Professor           | SAMPEI, Mitsuji      | Control Theory  |         |
| Professor           | FUJITA, Masayuki     | Systems and Control   |         |
| Professor           | HIRAI, Shuichiro     | Global Environment Engineering                                    |         |
| Professor           | HANAMURA, Katsunori  | Environmental Thermal Engineering                                 |         |
| Associate Professor | YOSHIOKA, Hayato     | Ultraprecision Mechanical System                                  |         |
| Associate Professor | YAMAMOTO, Takatoki   | Bionanotechnology, Micro TAS                                      |         |
| Associate Professor | SAKAGUCHI, Motoki    | Mechanics and Strength of Materials                               |         |
| Associate Professor | FUSHINOBU, Kazuyoshi | Energy Phenomena  |         |
| Associate Professor | SAITO, Takushi       | Laser Processing, Material Processing                             |         |
| Associate Professor | OHYAMA, Shinji       | Measurement Science   |         |
| Associate Professor | TANAKA, Masayuki     | Computational photography, Image processing                       |         |
| Associate Professor | TSUKAGOSHI, Hideyuki | Search and rescue robot,<br>Fluid powered robot, Medical actuator |         |
| Associate Professor | YAMAKITA, Masaki     | Control Engineering, Robotics                                     |         |
| Associate Professor | HATANAKA, Takeshi    | Control of network systems  |         |

**(12)Dept. of Mechanical and Aerospace Engineering**

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD  | REMARKS |
|---------------------|--------------------|---|---------|
| Professor           | TANAHASHI, Mamoru  | Fluid Dynamics, Heat and Mass Transfer, Combustion                      |         |
| Professor           | KOSAKA, Hidenori   | Thermodynamics, Fluid Dynamics, Internal Combustion Engine              |         |
| Professor           | OKUMA, Masaaki     | Structural Dynamics, Acoustics, Optimum Design, CAE                     |         |
| Professor           | KYOGOKU, Keiji     | Tribology   |         |
| Professor           | SUZUMORI, Koichi   | Robotics, Soft Robotics, Actuator                                       |         |
| Associate Professor | SHIMURA, Masayasu  | Fluid Dynamics, Heat and Mass Transfer, Combustion, Combustion Control  |         |
| Associate Professor | SATO Susumu        | Thermodynamics, Combustion Reaction, Exhaust Emission, Alternative Fuel |         |
| Associate Professor | HORIUTI, Kiyosi    | Fluid Physics, Turbulence   |         |
| Associate Professor | SAKAMOTO, Hiraku   | Space Structures, Dynamics, Numerical Analysis                          |         |
| Associate Professor | YAMAZAKI, Takahisa | Materials for Space Use, Advanced Joining and Surface Coating           |         |
| Associate Professor | SAITO, Shigeki     | Micromechanics, Micro Robotics  |         |
| Associate Professor | ENDO, Gen          | Robotics, Mechatronics, Mechanism Design                                |         |
| Professor           | *MATUNAGA, Saburo  | Space Systems Engineering, Space Robotics, Small Satellite              |         |

\*indicates person who belongs to the Institute of Space and Astronautical Science (ISAS), JAXA.

**(13)Dept. of Electrical and Electronic Engineering**

| ACADEMIC ADVISOR    |                  | RESEARCH FIELD  | REMARKS |
|---------------------|------------------|---|---------|
| Professor           | AKAGI, Hirofumi  | Power Electronics, Power Systems  |         |
| Associate Professor | FUJITA, Hideaki  | Power Electronics, Electrical Machinery   |         |
| Associate Professor | HAGIWARA, Makoto | Power Electronics, Smart Grid, Renewable Energy   |         |
| Adjunct Professor   | NAKADE, Masahiko | Power Cable, Degradation Diagnostic Technology, Electric Power Engineering                |         |
| Professor           | YASUOKA, Koichi  | Plasma and Pulsed Power Engineering   |         |
| Lecturer            | TAKEUCHI, Nozomi | Applications of Plasma on Gas-Liquid Interface, Electrohydrodynamics and its Applications |         |
| Professor           | CHIBA, Akira     | Drive Electronics, Power Mechatronics, Intelligent Drive                                  |         |
| Professor           | ANDO, Makoto     | Antennas, Millimeter Wave Communication/Sensing Systems, Electromagnetic Wave Theory      |         |

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|---------------------|---------------------|---|--|
| Associate Professor | HIROKAWA, Jiro      | Antennas, Electromagnetic Wave Theory   |  |
| Professor           | MIZUMOTO, Tetsuya   | Lightwave Circuits, Integrated Optics   |  |
| Associate Professor | SHOJI, Yuya         | Lightwave Circuits, Optical Communication   |  |
| Professor           | ARAI, Shigehisa     | Semiconductor Optical Devices, Opto- and<br>Quantumelectronics, Optical Communication |  |
| Associate Professor | NISHIYAMA, Nobuhiko | Optical Circuits, Semiconductor Optical Devices,<br>Optical Transmission Systems      |  |
| Professor           | NANAHARA Toshiya    | Power Systems, Renewable energy   |  |

**(14)Dept. of Physical Electronics**

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD   | REMARKS |
|---------------------|--------------------|--|---------|
| Professor           | YAMADA, Akira      | Semiconductor Physics, Solar Cells, Compound<br>Thin-Film Solar Cells              |         |
| Associate Professor | MIYAJIMA, Shinsuke | Semiconductor Materials and Devices, Solar Cells,<br>Thin-Film Solar Cells         |         |
| Professor           | IWAMOTO, Mitsumasa | Electronic Materials, Molecular Electronics, Organic<br>Materials Electronics      |         |
| Associate Professor | MANAKA, Takaaki    | Organic Devices, Nonlinear Optics  |         |
| Professor           | MIYAMOTO, Yasuyuki | Semiconductor Process/Devices  |         |
| Associate Professor | SUZUKI, Safumi     | Ultra High-Speed Electronic Devices, Terahertz Wireless<br>Communication           |         |
| Professor           | FUKUDA, Koichi     | Semiconductor Device Simulation  |         |
| Professor           | ODA, Shunri        | Quantum Nano Devices, Semiconductor Devices  |         |
| Associate Professor | KAWANO, Yukio      | Nano Electronics and Mechanics, Solid-State Physics<br>and Engineering             |         |
| Professor           | HATANO, Mutsuko    | Applied Physics, Electron Devices, Electronic Materials                            |         |
| Associate Professor | KODERA, Tetsuo     | Electron Devices, Power Devices, Sensing Devices                                   |         |
| Professor           | NAKAGAWA, Shigeki  | Information Storage Devices, Spintronics, Magnetic<br>Materials                    |         |
| Associate Professor | PHAM, Nam Hai      | Semiconductor Spintronic Materials, Magnetic<br>Semiconductors, Spintronic Devices |         |
| Professor           | MATSUZAWA, Akira   | Integrated Circuits, Mixed Signal LSI Design                                       |         |
| Associate Professor | OKADA, Kenichi     | Wireless Circuit Design, Analog Circuit Design                                     |         |



**(15)Dept. of Communications and Computer Engineering**

| ACADEMIC ADVISOR    |                     | RESEARCH FIELD   | REMARKS |
|---------------------|---------------------|--|---------|
| Professor           | FUKAWA, Kazuhiko    | Mobile Communications, Signal Processing, Adaptive Filter Theory               |         |
| Professor           | *OGATA, Wakaha      | Information Security, Cryptography   |         |
| Professor           | TAKAGI, Shigetaka   | Integrated Circuits, Circuit Theory  |         |
| Professor           | TAKAHASHI, Atsushi  | VLSI CAD, Physical Design, Synchronous Circuits                                |         |
| Professor           | UENO, Shuichi       | Theory of Parallel, VLSI and Quantum Computation                               |         |
| Professor           | UYEMATSU, Tomohiko  | Information Theory, Coding Theory  |         |
| Professor           | YAMADA, Isao        | Signal Processing, Communication Theory, Optimization Theory, Inverse Problems |         |
| Associate Professor | HARA, Yuko          | Hardware/Software Co-design, Reliable Embedded Systems                         |         |
| Professor           | ISSHIKI, Tsuyoshi   | System-LSI Design Methodology, Embedded Processor Design                       |         |
| Associate Professor | KASAI, Kenta        | Coding Theory, LDPC Codes, Spatially Coupled Codes                             |         |
| Associate Professor | MATSUMOTO, Ryutaroh | Quantum Information Theory, Coding Theory                                      |         |
| Associate Professor | YAMAOKA, Katsunori  | Information and Communication Network  |         |

\* indicates person who belongs to other department.

**(16)Dept. of Civil Engineering**

| ACADEMIC ADVISOR |                    | RESEARCH FIELD   | REMARKS |
|------------------|--------------------|--|---------|
| Professor        | NIWA, Junichiro    | Structural Concrete  |         |
| Professor        | ASAKURA, Yasuo     | Transportation Planning & Engineering  |         |
| Professor        | KITAZUME, Masaki   | Soil Mechanics & Geotechnical Engineering  |         |
| Professor        | IWANAMI, Mitsuyasu | Infrastructure management, Marine structure engineering  |         |
| Professor        | KANAE, Shinjiro    | Hydrology, Hydrologic cycle, Water resources   |         |
| Professor        | *HIROSE, Sohichi   | Applied Solid Mechanics  |         |
| Professor        | *NADAOKA, Kazuo    | Coastal ecosystem conservation studies, integrated coastal zone management, coastal oceanography and engineering |         |
| Professor        | *YAI, Tetsuo       | Transportation Planning & Engineering  |         |
| Professor        | *MORIKAWA, Hitoshi | Earthquake Engineering   |         |

|                     |                         |  |  |
|---------------------|-------------------------|--|--|
| Professor           | *KINOUCHI, Takeshi      | Hydrology, River Engineering                   |  |
| Professor           | TAKAHASHI, Akihiro      | Geotechnical Engineering                       |  |
| Associate Professor | WIJEYEWICKREMA, C. Anil | Applied Mechanics                              |  |
| Associate Professor | TAKEMURA, Jiro          | Soil Mechanics & Geo-environmental Engineering |  |
| Associate Professor | FUKUDA, Daisuke         | Transportation and Infrastructure Planning     |  |
| Associate Professor | YOSHIMURA, Chihiro      | Environmental Engineering, Biogeochemistry     |  |
| Associate Professor | SASAKI, Ei-ichi         | Bridge Engineering & Structural Engineering    |  |
| Associate Professor | OLIVER, C.S. Valeriano  | River & Environmental Engineering              |  |
| Associate Professor | *MUROMACHI, Yasunori    | Urban Transportation Planning                  |  |
| Associate Professor | *NAKAMURA, Takeshi      | Numerical Fluid Mechanics                      |  |
| Lecturer            | *NAKAMURA, Takashi      | Coastal ecosystem modeling & Biogeochemistry   |  |

\* indicates person who belongs to other department.

\*\*contact the department

#### (17)Dept. of Architecture and Building Engineering

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD   | REMARKS |
|---------------------|----------------------|--|---------|
| Professor           | TOKIMATSU, Kohji     | Geotechnical Earthquake Engineering                                      |         |
| Associate Professor | TAMURA, Shuji        | Geotechnical Earthquake Engineering                                      |         |
| Associate Professor | YAMAZAKI, Taisuke    | History of Architecture, Architectural Design                            |         |
| Professor           | FUJII, Haruyuki      | Design Science, Architectural Planning and Environmental Design Theories |         |
| Professor           | YASUDA, Koichi       | Architectural Design   |         |
| Associate Professor | MURATA, Ryo          | Architectural Design   |         |
| Associate Professor | HOTTA, Hisato        | Composite Structures   |         |
| Professor           | TSUKAMOTO, Yoshiharu | Architectural Design and Urban Research                                  |         |
| Professor           | TAKEUCHI, Toru       | Steel Structure, Structural design, Seismic Control                      |         |
| Associate Professor | YOKOYAMA, Yutaka     | Building Materials   |         |
| Associate Professor | YUASA, Kazuhiro      | Environmental Engineering, Building Services                             |         |

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|---------------------|---------------------|--|--|
| Associate Professor | IKARASHI, Kikuo     | Steel Structures   |  |
| Professor           | SAKATA, Hiroyasu    | Concrete Structure, Timber Structure                       |  |
| Professor           | MIYAMOTO, Fumihito  | School Building, Environmental Psychology                  |  |
| Professor           | OKUYAMA, Shinichi   | Architectural Design                                       |  |
| Associate Professor | SAIO, Naoko         | Architectural and Regional Planning                        |  |
| Professor           | *OSARAGI, Toshihiro | Architectural Planning, Spatial Analysis and Urban Studies |  |
| Associate Professor | *MIKAMI, Takamasa   | Concrete Engineering, Building Materials                   |  |
| Associate Professor | *KAGI, Naoki        | Environmental Engineering                                  |  |

\* indicates person who belongs to other department.

### (18)Dept. of International Development Engineering

| ACADEMIC ADVISOR    |                     | RESEARCH FIELD  | REMARKS |
|---------------------|---------------------|---|---------|
| Professor           | HINODE, Hirofumi    | Inorganic Materials and Properties, Catalyst and Chemical, Process, Chemical Engineering in General             |         |
| Professor           | TAKADA, Jun-ichi    | Wireless Communications, Electromagnetic Wave Theory and Application, ICT and Development                       |         |
| Professor           | KANDA, Manabu       | Regional Atmospheric Environment  |         |
| Professor           | NAKASAKI, Kiyohiko  | Environmental Bioengineering  |         |
| Professor           | TAKAHASHI, Kunio    | Mechanical Engineering, Mechanics, Material Science, Material Processing  |         |
| Professor           | YAMAGUCHI, Shinobu  | Education and IT, International Development and Cooperation, Sustainable Development of World Cultural Heritage |         |
| Associate Professor | ABE, Naoya          | Environmental Economics, Policy Studies for the Environment, International Cooperation                          |         |
| Associate Professor | HANAOKA, Shinya     | Transport Planning, Transport Logistics, Transport Project Management   |         |
| Associate Professor | YAMASHITA, Yukihiro | Computer Science, Intelligent Informatics   |         |
| Associate Professor | TAKAGI, Hiroshi     | Disaster Prevention Engineering, Coastal Engineering  |         |
| Associate Professor | EGASHIRA, Ryuichi   | Separation Engineering, Separation Process, Separation Operation  |         |
| Associate Professor | AKITA, Daisuke      | Aerospace Systems, Aerodynamics   |         |

### (19)Dept. of Nuclear Engineering

| ACADEMIC ADVISOR |                    | RESEARCH FIELD  | REMARKS               |
|------------------|--------------------|---|-----------------------|
| Professor        | IGASHIRA, Masayuki | Neutron Physics, Nuclear Transmutation, Nuclear Physics | Retirement March 2017 |

|                     |                       |  |                       |
|---------------------|-----------------------|--|-----------------------|
| Professor           | CHIBA, Satoshi        | Nuclear Reactions, Nuclear Decay, Nuclear Data, Radiation Transport, Innovative Nuclear Systems, Medical and Astrophysical Applications            |                       |
| Professor           | YANO, Toyohiko        | Materials for Nuclear Reactors and Waste Management, Neutron Irradiation Damage of Materials, Ceramic Matrix Composites for Severe Environment     | Retirement March 2018 |
| Professor           | OBARA, Toru           | Reactor Physics, Nuclear Reactor Design, Passive Safe Reactor, Nuclear Safety  |                       |
| Professor           | TAKAHASHI, Minoru     | Light Water Reactor and Fast reactor Engineering, Thermal Hydraulics, Nuclear Material, Fusion Reactor Blanket, Liquid Metal Engineering           | Retirement March 2018 |
| Associate Professor | KIKURA, Hiroshige     | Nuclear Reactor Safety, Process Control and Measurement System, Thermal Hydraulics, Safe Transport of Radioactive Material                         |                       |
| Associate Professor | HAYASHIZAKI, Noriyosu | Accelerator Physics and Engineering, Particle Beam Simulation, Accelerator-Based Boron Neutron Capture Therapy                                     |                       |
| Associate Professor | TSUKAHARA, Takehiko   | Micro/Nano Fluidics, Nano Interface, Highly Sensitive Detection, Radionuclide Separation and Analysis, Deep Geological Disposal                    |                       |
| Associate Professor | TSUTSUI, Hiroaki      | Plasma Physics and Nuclear Fusion, Superconducting Magnetic Energy Storage system  |                       |
| Associate Professor | SAGARA, Hiroshi       | Nuclear safety, security and non-proliferation (3S), Reactor design for high-level-waste transmutation Non-destructive assay technology            |                       |
| Professor           | *OGURI, Yoshiyuki     | Heavy-Ion Inertial Fusion, Accelerator-based Environmental and Medical Sciences  |                       |
| Professor           | *TAKESHITA, Kenji     | Nuclear Chemical Engineering, Nuclear Fuel Cycle, Fuel Reprocessing, Nuclide Separation (MA, Cs, Sr, Tc, PGM), Isotope Separation, Metal Recycling |                       |
| Associate Professor | *AKATSUKA, Hiroshi    | Plasma Diagnostics, plasma Spectroscopy, Laser Engineering, Atomic and Molecular Processes in Plasmas  |                       |
| Professor           | *HIO, Shunji          | Plasma Physics, Fusion Engineering, Laser Diagnostics  |                       |
| Associate Professor | *MATSUMOTO, Yoshihisa | Radiation Biology, Molecular Biology and Biochemistry, Basic Medicine  |                       |
| Professor           | *KATO, Yukitaka       | Energy Conversion, Energy Storage, Chemical Heat Pump, Carbon Recycling Energy System, Hydrogen Energy, Nuclear Energy Utilization System          |                       |
| Professor           | KOBAYASH, Yoshinao    | Safety Metallurgy for Nuclear Reactors, Phase Stability, Degradation of Materials in Reactors, Waste Management                                    |                       |
| Associate Professor | TAKAO, Koichiro       | Actinide Chemistry, Coordination Chemistry, Nuclear Fuel Cycle, Fuel Reprocessing, Radioactive Wastes, Decontamination                             |                       |

\* indicates person who belongs to other department.

## Graduate School of Bioscience and Biotechnology (20)Dept. of Life Science

| ACADEMIC ADVISOR |                   | RESEARCH FIELD                              | REMARKS |
|------------------|-------------------|---|---------|
| Professor        | ICHINOSE, Hiroshi | Molecular Biology and Neuroscience          |         |
| Professor        | MURAKAMI, Satoshi | Structural Biology, Protein Crystallography |         |

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|---------------------|-------------------|---|--|
| Professor           | YUASA, Hideya     | Bioorganic Chemistry                        |  |
| Professor           | KAJIWARA, Susumu  | Molecular Biology and Microbe Biotechnology |  |
| Associate Professor | OSADA, Toshiya    | Neuroscience                                |  |
| Associate Professor | HAYASHI, Nobuhiro | Molecular Biology and Proteomics            |  |
| Associate Professor | SEIO, Kohji       | Bioorganic Chemistry                        |  |
| Associate Professor | OHKUBO, Akihiro   | Bioorganic Chemistry                        |  |
| Associate Professor | *AIZAWA, Yasunori | Cellular Genomics                           |  |

\*indicates person who belongs to other department or institute.

### (21)Dept. of Biological Sciences

| ACADEMIC ADVISOR    |                     | RESEARCH FIELD                           | REMARKS |
|---------------------|---------------------|--|---------|
| Professor           | KOMADA, Masayuki    | Medical Cell Biology and Biochemistry    |         |
| Professor           | IWASAKI, Hiroshi    | Molecular Genetics and Molecular Biology |         |
| Professor           | KIMURA, Hiroshi     | Epigenetics and Cell Biology             |         |
| Professor           | HONGO, Yuichi       | Molecular Microbial Ecology              |         |
| Professor           | OHTA, Hiroyuki      | Plant Molecular Biology                  |         |
| Associate Professor | NAKAMURA, Nobuhiro  | Molecular Cell Biology                   |         |
| Associate Professor | NAKATOGAWA, Hitoshi | Molecular Biology and Biochemistry       |         |
| Associate Professor | NIKAIDO Masato      | Molecular Evolutionary Biology           |         |
| Associate Professor | SHIMOJIMA Mie       | Plant Molecular Biology and Biochemistry |         |
| Associate Professor | TANAKA, Mikiko      | Developmental Biology                    |         |
| Associate Professor | KAJIKAWA, Masaki    | Molecular Biology                        |         |
| Associate Professor | *MASUDA, Shinji     | Plant Molecular Biology and Photobiology |         |
| Associate Professor | *SUZUKI, Takashi    | Neurobiology                             |         |

\*indicates person who belongs to other department.

**(22)Dept. of Biological Information**

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD   | REMARKS |
|---------------------|----------------------|--|---------|
| Professor           | KUME, Shoen          | Stem Cell Biology, Regenerative Medicine                                     |         |
| Professor           | YAMAGUCHI, Yuki      | Control of Gene Expression   |         |
| Professor           | ITOH, Takehiko       | Bioinformatics   |         |
| Professor           | KUROKAWA, Ken        | Genome Science and Bioinformatics  |         |
| Professor           | TOKUNAGA, Makio      | Single Molecule Biology, Immune Cell Signaling,<br>Molecular Systems Biology |         |
| Associate Professor | KOTERA, Masaaki      | Chemical Bioinformatics  |         |
| Associate Professor | SHIRAKI, Nobuaki     | Stem Cell Biology  |         |
| Associate Professor | *TACHIBANA, Kazunori | Cell and Developmental Biology   |         |
| Associate Professor | KAWAKAMI, Atsushi    | Developmental Genetics, Regenerative Biology                                 |         |
| Associate Professor | NAKASHIMA, Nobutaka  | Bacterial metabolic engineering,<br>Synthetic biology                        |         |
| Associate Professor | YAMADA, Takuji       | Genome Science and Bioinformatics  |         |

\*indicates person who belongs to other department.

**(23)Dept. of Bioengineering**

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD   | REMARKS |
|---------------------|--------------------|--|---------|
| Professor           | NAKAMURA, Satoshi  | Protein Engineering, Genetic Engineering and<br>Directed Evolution                       |         |
| Professor           | MIHARA, Hisakazu   | Bioorganic Chemistry and Peptide Chemistry   |         |
| Professor           | KOBAYASHI, Yuichi  | Synthetic Organic Chemistry, Synthesis of Biologically<br>Active Compounds, Drug Design  |         |
| Professor           | WACHI, Masaaki     | Applied Microbiology   |         |
| Professor           | TANJI, Yasunori    | Biochemical Engineering and Environmental<br>Microbiology                                |         |
| Professor           | FUKUI, Toshiaki    | Genetic Engineering, Genome Engineering,<br>Extremophiles                                |         |
| Associate Professor | HIRASAWA, Takashi  | Molecular Microbiology and Metabolic Engineering   |         |
| Associate Professor | KAMACHI, Toshiaki  | Development of Enzymatic Reaction System with<br>Metalloenzyme                           |         |
| Associate Professor | OGURA, Shun-ichiro | Molecular Biology, Alternative Therapy for Tumor,<br>Biometabolic Engineering, Biomarker |         |
| Associate Professor | MATSUDA, Tomoko    | Bioorganic Chemistry, Biocatalysis, Green Chemistry                                      |         |

|                     |                   |   |  |
|---------------------|-------------------|---|--|
| Associate Professor | ASAKURA, Noriyuki | Bioinorganic Chemistry, Biological Electron Transfer        |  |
| Associate Professor | *HIROTA, Junji,   | Molecular Mechanisms of the Development of Olfactory System |  |

\*indicates person who belongs to other department.

### (24)Dept. of Biomolecular Engineering

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD   | REMARKS |
|---------------------|-------------------|--|---------|
| Professor           | URABE, Hirokazu,  | Organic Synthesis, Asymmetric Synthesis                                    |         |
| Associate Professor | HATA, Takeshi     | Organic Synthesis, Asymmetric Synthesis                                    |         |
| Associate Professor | ☆OHTANI, Hiroyuki | Biophysical Chemistry  |         |
| Professor           | Kazushi Kinbara   | Bioinspired Synthetic Chemistry  |         |
| Associate Professor | MORI, Toshiaki    | Bioorganic Chemistry, Polymer Chemistry                                    |         |
| Professor           | *SAKURAI, Minoru  | Biophysical Chemistry, Computational Chemistry                             |         |
| Professor           | UENO, Takafumi    | Biophysical Chemistry, Biosupramolecular Chemistry                         |         |
| Professor           | KONDO, Shinae     | In Vivo Imaging, Cancer Biology, Drug Development                          |         |
| Professor           | TAGUCHI, Hideki   | Biophysical Chemistry, Protein Folding                                     |         |
| Professor           | MARUYAMA, Atsushi | Biomaterials, Bioconjugates, Biofunctional Polymers                        |         |
| Associate Professor | TAGAWA, Yoh-ichi  | Developmental Engineering, Molecular Biology, Artificial Organ, Immunology |         |

\*indicates person who belongs to other department.

☆indicates person who is to retire in March, 2017.

### Interdisciplinary Graduate School of Science and Engineering

#### (25)Dept. of Innovative and Engineered Materials

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD  | REMARKS |
|---------------------|-------------------|---|---------|
| Professor           | YOSHIMOTO, Mamoru | Oxide Nano-Engineering, Device, Solar cell  |         |
| Associate Professor | MATSUDA Akifumi   | Atomic-scale Materials Engineering, Materials for Electronics and Energy Applications |         |
| Associate Professor | TSUGE, Takeharu   | Biodegradable Plastics  |         |
| Professor           | FUNAKUBO, Hiroshi | Materials Science, Thin Film Devices  |         |
| Associate Professor | WADA, Hiroyuki    | Optical Materials, Nanoparticles  |         |
| Associate Professor | SANNOMIYA, Takumi | Plasmonic Materials, Electron Microscopy  |         |

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|---------------------|---------------------|--|--|
| Professor           | KITAMOTO, Yoshitaka | Nanoparticles, Magnetic Materials and Devices, Spintronics                         |  |
| Professor           | HARA, Michikazu     | Catalysis, Surface Science   |  |
| Associate Professor | KAMATA, Keigo       | Catalytic Chemistry, Environment-Friendly Chemical Process                         |  |
| Professor           | KAMIYA, Toshio      | Semiconductors, Optoelectronic Devices, Computer simulation                        |  |
| Associate Professor | SASAGAWA, Takao     | Strongly Correlated Electron Systems   |  |
| Professor           | HOSODA, Hideki      | Shape Memory Alloys, Intermetallics  |  |
| Associate Professor | INAMURA, Tomonari   | Shape Memory Alloys, Intermetallics  |  |
| Professor           | AZUMA, Masaki       | Solid State Chemistry  |  |
| Associate Professor | NAKAMURA, Kazutaka  | Laser Spectroscopy   |  |
| Associate Professor | NAGAI, Keiji        | Energy Conversion Materials, Organophotocatalyst Responsive to Whole Visible Light |  |
| Associate Professor | KITANO, Masaaki     | Heterogeneous Catalyst, Ammonia Synthesis, Acid Base Catalyst                      |  |
| Associate Professor | TADA, Tomofumi      | Quantum Chemistry for Device Modeling  |  |
| Visiting Professor  | KONDO, Michio       | Amorphous Semiconductors, Plasma Processing  |  |
| Visiting Professor  | SAKATA, Osami       | Synchrotron Radiation Analysis, Atomic-Scale Innovation, Device                    |  |
| Visiting Professor  | YAMAGUCHI, Takao    | Engineering Materials Technology for Human Space Systems                           |  |
| Visiting Professor  | ABE, Hideki         | Polymer Chemistry  |  |
| Visiting Professor  | KAJINO, Tsutomu     | Energy Conversion Materials and Systems, Biomimetics, Photocatalyst                |  |
| Visiting Professor  | TANAKA, Takuo       | Metamaterials, Nanophotonics, Plasmonics   |  |

**(26)Dept. of Electronic Chemistry**

| ACADEMIC ADVISOR |                  | RESEARCH FIELD   | REMARKS |
|------------------|------------------|--|---------|
| Professor        | KANNO, Ryoji     | Solid State Electrochemistry, Inorganic Materials Chemistry  |         |
| Professor        | HARA, Masahiko   | Materials Chemistry (Self-Assembly, Surface & Interface Chemistry), Nanotechnology, Scanning Probe Microscopy, Nanophotonics, Bio-interface, Origin of Life and Chemical Evolution Experiments |         |
| Professor        | TOMITA, Ikuyoshi | Polymer Synthetic Chemistry  |         |
| Professor        | FUJII, Masaaki   | Physical Chemistry, Laser Spectroscopy, Cluster  |         |



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|---------------------|----------------------|--|--|
| Professor           | NAKAMURA, Hiroyuki   | Organic Synthesis, Medicinal Chemistry, Chemical Biology   |  |
| Professor           | FUKUSHIMA, Takanori  | Organic Functional Materials, Nanomaterials, $\pi$ -Electronic Systems, Molecular Assembly   |  |
| Professor           | TANAKA, Kan          | Evolutional Cell Biology, Cell Cycle, Signal Transduction, Microbiology, Symbiosis, Organelle, Chloroplast, Mitochondria, Transcriptional Regulation, Plant Physiology, Photosynthesis |  |
| Professor           | KAWAJI, Hitoshi      | Physical Chemistry of Materials, Phase Transition  |  |
| Associate Professor | KITAMURA, Fusao      | Electrochemistry, Spectroscopy   |  |
| Associate Professor | SAKAI, Makoto        | Physical Chemistry, Laser Spectroscopy   |  |
| Associate Professor | MATSUSHITA, Nobuhiro | Novel Solution Processes for Electronic, Energy and Biomedical Materials   |  |
| Associate Professor | NOMURA, Junko        | Catalytic Chemistry, Inorganic Synthesis   |  |
| Associate Professor | KOIZUMI, Takeaki     | Organometallic Chemistry, Electrocoordination Chemistry  |  |
| Associate Professor | HIRAYAMA, Masaaki    | Energy Conversion Materials, Inorganic and Solid State Chemistry, Electrochemical Interface  |  |
| Associate Professor | INAGI, Shinsuke      | Organic Electrochemistry, Polymer Chemistry  |  |
| Associate Professor | HAYASHI, Tomohiro    | Nanoscience & Nanotechnology, Surface & Interface Science, Scanning Probe Microscopy, Nanophotonics  |  |
| Associate Professor | IMAMURA, Sousuke     | Molecular Biology, Gene Regulation, Genetic Engineering, Biofuel, Algal Biomass  |  |
| Associate Professor | FUSE, Shinichiro     | Synthetic Organic Chemistry, Medicinal Chemistry, Natural Product Synthesis, Micro-flow Synthesis  |  |

**(27)Dept. of Materials Science and Engineering**

| ACADEMIC ADVISOR |                    | RESEARCH FIELD   | REMARKS |
|------------------|--------------------|--|---------|
| Professor        | ONAKA, Susumu      | Mechanical Properties of Materials   |         |
| Professor        | KAJIHARA, Masanori | Thermodynamics and Kinetics of Phase Transformations                         |         |
| Professor        | HIRAYAMA, Hiroyuki | Surface and Interface Physics  |         |
| Professor        | ITOH, Mitsuru      | Inorganic Solid-State Chemistry  |         |
| Professor        | SASAKI, Satoshi    | Diffraction Physics and Materials Science                                    |         |
| Professor        | HOSONO, Hideo      | Electronic Materials, Superconductors, Oxide Semiconductors, Organic LED     |         |
| Professor        | WAKAI, Fumihiko    | Mechanical Properties of Ceramic Materials                                   |         |
| Professor        | MAJIMA, Yutaka     | Nanoscale Electronic Materials, Molecular Devices, Scanning Probe Microscopy |         |

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|------------------------------|-----------------------|--|--|
| Professor                    | OBA, Fumiyasu         | Design and Exploration for Electronic Materials based on Computational Science                         |  |
| Visiting Professor           | KANISAWA, Kiyoshi     | Semiconductor  |  |
| Visiting Professor           | YOSHINAGA, Naoki      | Microstructural Design and Properties of Steel for Automobiles   |  |
| Visiting Professor           | KAMBE, Hiroshi        | Non-ferrous Metals and Alloys for Automobiles, Casting Technique, Solidification                       |  |
| Associate Professor          | KIMURA, Yoshisato     | Heat Resistant Alloys and Thermoelectric Materials Design based on Phase Equilibria and Microstructure |  |
| Associate Professor          | TERADA, Yoshihiro     | Microstructure Control, Mechanical Properties, Heat-Resistant Materials                                |  |
| Associate Professor          | NAKADA, Nobuo         | Microstructure and Mechanical Properties of Iron and Steels  |  |
| Associate Professor          | NAKATSUJI, Kan        | Surface and Interface Physics  |  |
| Associate Professor          | GOHDA, Yoshihiro      | Surface and Interface Physics (Theoretical Calculations)   |  |
| Associate Professor          | TANIYAMA, Tomoyasu    | Magnetism in Nanostructures, Spin Electronics, Multiferroics   |  |
| Associate Professor          | SUSAKI, Tomofumi      | Nanometer Scale Control of Oxide Interfaces and Surfaces by Pulsed Laser Deposition                    |  |
| Associate Professor          | ATO, Toshiyuki        | High Pressure and Phase Transformation   |  |
| Associate Professor          | HIRAMATSU, Hidenori   | Superconducting Materials and Devices  |  |
| Associate Professor          | SONE, Masato          | Material Fabrication Process for IC & MEMS   |  |
| Associate Professor          | MATSUISHI, Satoru     | Synthesis and Characterization of Superconducting and Electro-Active Materials                         |  |
| Visiting Associate Professor | NISHIGUCHI, Katsuhiko | Semiconductor Engineering and Physics, Nanotechnology, Electronic Devices, Transistor                  |  |

**(28)Dept. of Environmental Science and Technology**

| ACADEMIC ADVISOR |                    | RESEARCH FIELD  | REMARKS |
|------------------|--------------------|---|---------|
| Professor        | YAMANAKA, Hiroaki  | Environmental and Engineering Geophysics, Strong Motion Seismology  |         |
| Professor        | TAMURA, Tetsuro    | Atmospheric Environmental Turbulence, Wind Engineering, Wind Disaster Mitigation  |         |
| Professor        | MURAYAMA, Takehiko | Environmental Policy & Planning, Risk Assessment & Management, Risk Communication, Environmental Impact Assessment, Policy Dialogue, Social Decision-Making |         |
| Professor        | YOSHIKAWA, Kunio   | Thermal Recycling of Wastes, Energy Conversion, Thermal Engineering, Atmospheric Environmental Engineering  |         |
| Professor        | KINOUCI, Tsuyoshi  | Watershed Hydrology, Environmental Hydrology  |         |

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|------------------------------|---------------------|---|--|
| Professor                    | TAKESHITA, Kenji    | Environmental Chemical Engineering, Material Recycling, Waste Management, Separation Engineering (Extraction, Adsorption)                   |  |
| Professor                    | KONO, Susumu        | Reinforced and prestressed concrete structures, Earthquake Engineering  |  |
| Professor                    | YAMADA, Satoshi     | Structural Engineering, Earthquake Engineering  |  |
| Professor                    | UEDA, Hiroshi       | Bioprocess and Protein Engineering, Antibody Engineering, Analytical Chemistry, Biosensors  |  |
| Professor                    | *YOSHIDA, Naohiro   | Biogeochemistry, Environmental Chemistry, Material Cycle Analysis   |  |
| Professor                    | *SAKATA, Hiroyasu   | Building Material and Structural Engineering  |  |
| Visiting Professor           | KAIEDA, Hideshi     | Applied geophysics<br>Geothermal engineering  |  |
| Visiting Professor           | INOUE, Tetsunori    | Environmental Hydrodynamics   |  |
| Visiting Professor           | KAMO, Tohru         | Recycle Engineering, Chemical Reaction Engineering, Environmental Engineering, Optimization of Resource Circulation                         |  |
| Visiting Professor           | AOYAGI, Midori      | Sociology of Risk, Environmental Sociology, Risk and Media, Survey Research   |  |
| Associate Professor          | NAKAMURA, Takashi   | Computational Environmental Fluid Dynamics, Computational Scheme, Multi Physics Simulation  |  |
| Associate Professor          | TOYODA, Sakae       | Environmental Geochemistry, Analysis of Environmental Material Cycles   |  |
| Associate Professor          | ASAWA, Takashi      | Urban and Built Environmental Engineering   |  |
| Associate Professor          | NISHIKIZAWA, Shigeo | Environmental Policy and Planning, Public Participation, Environmental Impact Assessment  |  |
| Associate Professor          | TAKAHASHI, Fumitake | Waste management with solid waste recycle, risk assessment, and psychological aspects<br>Supercritical fluid chemistry                      |  |
| Associate Professor          | TOKIMATSU, Koji     | Energy Technology, Resource Supply and Demand, Environmental and Resource Economics, Sustainable Development                                |  |
| Professor                    | KATO, Yukitaka      | Energy Conversion, Energy Storage, Chemical Heat Pump, Carbon Recycling Energy System, Hydrogen Energy, Energy Utilization System           |  |
| Associate Professor          | KISHIKI, Shoichi    | Base-Isolation and Passive Control Structure, Seismic Retrofit for Existing Buildings, Post-Earthquake Damage Evaluation and Rehabilitation |  |
| Associate Professor          | KANNO, Yoshihiro    | Structural Optimization, Mathematical Design, Computational Solid Mechanics   |  |
| Associate Professor          | SEKI, Hiroya        | Process Systems Engineering, Process Dynamics and Control   |  |
| Associate Professor          | SATO, Yuriko        | Policy Evaluation, Development Economics, International Education, Immigration Policy   |  |
| Visiting Associate Professor | KIKITSU, Hitomitsu  | Architectural Structure, Natural Hazard Mitigation  |  |

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|------------------------------|-------------------|--|--|
| Visiting Associate Professor | KOBAYASHI, Hideki | Remote Sensing, Agricultural and Forest Meteorology                                |  |
| Visiting Associate Professor | KAJITANI, Shiro   | Chemical Engineering, Chemical Reaction Engineering, Coal and Biomass Gasification |  |

\*indicates person who belongs to other department.

### (29)Dept. of Built Environment

| ACADEMIC ADVISOR             |                     | RESEARCH FIELD  | REMARKS |
|------------------------------|---------------------|---|---------|
| Professor                    | MIDORIKAWA, Saburoh | Earthquake Engineering and Disaster Management                        |         |
| Professor                    | MORIKAWA, Hitoshi   | Earthquake Engineering  |         |
| Professor                    | MOTOYUI, Shojiro    | Structural Engineering  |         |
| Professor                    | YAI, Tetsuo         | Transportation Planning   |         |
| Visiting Professor           | SUEMATSU, Takashi   | Human Behavior Simulation for Disaster                                |         |
| Associate Professor          | FURUYA, Hiroshi     | Aerospace Engineering, Multidisciplinary Structural Optimization      |         |
| Associate Professor          | MATSUOKA, Masashi   | Remote Sensing and Geoinformatics for Disaster Management             |         |
| Associate Professor          | MUROMACHI, Yasunori | Transport and the Environment, Travel Behavior                        |         |
| Associate Professor          | NAKAMURA, Yoshiki   | Visual Environment  |         |
| Associate Professor          | NASU, Satoshi       | Architectural Design and Theory<br>Public Space and Community Design  |         |
| Associate Professor          | SATO, Daiki         | Structural Engineering and Earthquake Engineering                     |         |
| Visiting Associate Professor | SATO, Toshiaki      | Urban Geospatial Information Analysis                                 |         |
| Visiting Associate Professor | SOEDA, Masashi      | Environmental Psychology  |         |
| Visiting Associate Professor | SUZUKI, Atsushi     | Energy and Environmental Policy                                       |         |
| Visiting Associate Professor | YANAGISAWA, Jun     | Public Space Design , Urban Landscape Design and Architectural Design |         |
| Professor                    | *MIYAMOTO, Fumihito | School Buildings, Environmental Psychology                            |         |
| Professor                    | *OSARAGI, Toshihiro | Geospatial Analysis and Modeling, Disaster Mitigation Planning        |         |
| Associate Professor          | *FUKUDA, Daisuke    | Transportation Planning & Traffic Engineering                         |         |

\*indicates person who belongs to other department.

**(30)Dept. of Energy Sciences**

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD   | REMARKS |
|---------------------|----------------------|--|---------|
| Professor           | KOHNO, Toshiyuki     | Physics and Application of High-Energy Heavy-Ion Beams   |         |
| Professor           | OKAMURA, Tetsuji     | Cryogenics, Cooling/Refrigeration Technology, Superconducting Magnet Technology  |         |
| Professor           | OKUNO, Yoshihiro     | Physics and Application of Magnetohydrodynamics, MHD Power Generation, Plasma Science and Engineering                                |         |
| Professor           | SUEKANE, Tetsuya     | Energy Conversion, Clean Coal Technology, CO <sub>2</sub> Geological Storage, Enhanced Oil Recovery                                  |         |
| Professor           | AOKI, Takayuki       | GPU Computing, Large-scale Computational Fluid Dynamics on Supercomputer, Two-phase Flow Simulation, Natural Disaster Simulation     |         |
| Professor           | OGURI, Yoshiyuki     | Heavy-Ion-Driven Inertial Fusion, Environmental- and Medical Sciences Based on MeV Ion Beams   |         |
| Visiting Professor  | FUJII, Takashi       | High intensity laser physics and application, Laser induced plasma spectroscopy  |         |
| Visiting Professor  | KURIYAMA, Toru       | Cryogenic Engineering, Cryocooler, Applied Superconductivity (LTS Magnets and HTS Magnets)   |         |
| Visiting Professor  | MATSUFUJI, Naruhiro  | Radiation Physics, Medical Application of Charged Particle Beams, Biological Response Modeling                                       |         |
| Associate Professor | NAGASAKI, Takao      | Thermal Engineering, Heat and Mass Transfer with Phase Change, Numerical Analysis of Heat and Fluid Flow                             |         |
| Associate Professor | XIAO, Feng           | Computational Fluid Dynamics, Fluid dynamics, Numerical Analysis, Atmospheric Physics, Meteorological Modeling                       |         |
| Associate Professor | OKINO, Akitoshi      | New Atmospheric Plasma Sources, Plasma Application for Medical, Analytical and Environmental Fields                                  |         |
| Associate Professor | WAKI, Keiko          | Fuel Cell, Electrochemical Capacitor, Solar Cell   |         |
| Associate Professor | KAWAMURA, Toru       | Plasma Physics, Atomic Processes in Plasmas, Plasma X-ray Spectroscopy   |         |
| Associate Professor | HASEGAWA, Jun        | Plasma Science and Technology, Ion Beam Application Studies, Inertial Fusion Studies, High Energy Density Science, Radiation Physics |         |
| Associate Professor | MATSUMOTO, Yoshihisa | Radiation Biology, Molecular Biology and Biochemistry, Basic Medicine  |         |
| Associate Professor | IIO, Shunji          | Magnetic Confinement Fusion, Laser Diagnostics, Applied Electromagnetics   |         |
| Associate Professor | AKATSUKA, Hiroshi    | Atomic and Molecular Processes in Plasmas, Plasma Diagnostics and Spectroscopy, Gaseous Electronics                                  |         |
| Associate Professor | *KANAMORI, Hideto    | Molecular Spectroscopy, Quantum Electronics, Quantum Computing   |         |

\*person who belongs to other department

**(31)Dept. of Environmental Chemistry and Engineering**

| ACADEMIC ADVISOR |                  | RESEARCH FIELD  | REMARKS |
|------------------|------------------|---|---------|
| Professor        | YOSHIDA, Naohiro | Environmental Chemistry, Isotope Chemistry            |         |
| Professor        | KOBATAKE, Eiry   | Protein Engineering, Cellular Engineering, Biosensing |         |

|                              |                       |  |  |
|------------------------------|-----------------------|--|--|
| Professor                    | BABA, Toshihide       | Heterogeneous Catalysis, Green Chemistry, Zeolite Synthesis, Bio Chemistry                             |  |
| Professor                    | OSAKADA, Kohtaro      | Synthetic Organic Chemistry, Organometallic Chemistry  |  |
| Professor                    | AKITA, Munetaka       | Organometallic Chemistry   |  |
| Professor                    | NISHIYAMA, Nobuhiro   | Drug Delivery System, Biomaterials Science   |  |
| Professor                    | YAMAGUCHI, Takeo      | Fuel Cell Engineering, Bio-inspired Materials, Membrane Science  |  |
| Professor                    | YAMAMOTO, Kimihisa    | Nano-materials Chemistry, Metallochemistry, Macromolecular Science                                     |  |
| Professor                    | HISABORI, Toru        | Bioenergetics, Plant Biochemistry  |  |
| Professor                    | *UEDA, Hiroshi        | Biotechnology, Protein Engineering   |  |
| Visiting Professor           | HATANAKA, Shigeto     | Petroleum Refining Processes, Heterogeneous Catalysis  |  |
| Visiting Professor           | KASAI, Yasuko         | Remoto Sensing, Atmospheric Science for Earth and Planets, Big Data Analysis for Satellite Observation |  |
| Visiting Professor           | OHKOUCHI, Naohiko     | Organic Geochemistry   |  |
| Associate Professor          | YAMADA, Keita         | Organic Geochemistry, Isotope Chemistry  |  |
| Associate Professor          | MIE, Masayasu         | Protein Engineering, Tissue Engineering, Biosensing  |  |
| Associate Professor          | TAKEUCHI, Daisuke     | Polymer Chemistry, Organometallic Chemistry  |  |
| Associate Professor          | SHISHIDO, Atsushi     | Polymer Chemistry, Materials Chemistry   |  |
| Associate Professor          | IMAOKA, Takane        | $\pi$ -Conjugating Molecular Chemistry, Electron Transfer Chemistry, Nanomaterial Science              |  |
| Associate Professor          | WAKABAYASHI, Ken-ichi | Cell Biology, Cell Motility, Biochemistry  |  |
| Associate Professor          | YOSHIZAWA, Michito    | Supramolecular Chemistry, Coordination Chemistry   |  |
| Associate Professor          | MOTOKURA, Ken         | Heterogeneous Catalysis, Organic Chemistry   |  |
| Associate Professor          | TAMAKI, Takanori      | Energy Materials, Biomaterials, Bioelectrochemistry  |  |
| Associate Professor          | *SEKI, Hiroya         | Process Systems Engineering, Process Dynamics and Control  |  |
| Visiting Associate Professor | SAKAMOTO, Yasuharu    | Synthetic Organic Chemistry  |  |

\*indicates person who belongs to other department.

**(32) Dept. of Electronics and Applied Physics**

| ACADEMIC ADVISOR    |                      | RESEARCH FIELD  | REMARKS |
|---------------------|----------------------|---|---------|
| Professor           | ASADA, Masahiro      | Semiconductor Nano-Devices, High-Speed Devices, Terahertz Devices                           |         |
| Professor           | HANNA, Jun-ichi      | Imaging Materials, Imaging Science and Engineering  |         |
| Professor           | KAJIKAWA, Kotaro     | Plasmonics, Metamaterials, Nonlinear Optics   |         |
| Professor           | KOYAMA, Fumio        | Photo Integrated Devices for Optical Communication  |         |
| Professor           | MASU, Kazuya         | Diverse-Functionality-Integration on CMOS, Swarm Electronics for Cyber Physical System      |         |
| Professor           | MUNEKATA, Hiro       | Condensed Matter Physics (experiment), Spintronics, Photonics, Materials Science            |         |
| Professor           | TSUTSUI, Kazuo       | Solid State Electronics   |         |
| Professor           | UENOHARA, Hiroyuki   | Optical Communications, Photonic Switching, Photonic Integration, Optical Signal Processing |         |
| Professor           | WAKABAYASHI, Hitoshi | Semiconductor Devices, Nano-electronics, LSI  |         |
| Visiting Professor  | ISHIBASHI, Koji      | Nanofabrication, Quantum Nanodevices  |         |
| Visiting Professor  | KATOH, Takashi       | Organic Electro Photo-functionality Materials   |         |
| Associate Professor | IINO, Hiroaki        | Organic Electronics, TFT, Imaging Devices   |         |
| Associate Professor | ITO, Haruhiko        | Opto-Quantum Electronics  |         |
| Associate Professor | ITO, Hiroyuki        | RF Integrated Circuits for Communication, Hardware Technologies for Cyber Physical System   |         |
| Associate Professor | KAKUSHIMA, Kuniyuki  | Nanoelectronics and MEMS  |         |
| Associate Professor | MIYAMOTO, Tomoyuki   | Semiconductor Opto-electronic Devices   |         |
| Associate Professor | OHMI, Shun-ichiro    | Semiconductor Devices   |         |
| Associate Professor | SUGAHARA, Satoshi    | Semiconductor Physics and Materials, Magnetism, Spintronics                                 |         |
| Associate Professor | WATANABE, Masahiro   | Quantum Photonic Devices, Hetero-epitaxial Engineering                                      |         |

**(33) Dept. of Mechano-Micro Engineering**

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD  | REMARKS |
|---------------------|--------------------|---|---------|
| Professor           | OMATA, Toru        | Robotics, Medical Systems                                     |         |
| Professor           | SHINNO, Hidenori   | Ultraprecision Machining, Machine Tools                       |         |
| Professor           | SHINSHI, Tadahiko  | Mechanical Systems, Magnetic MEMS, Artificial Heart           |         |
| Professor           | HATSUZAWA, Takeshi | Bio-MEMS/NEMS   |         |
| Professor           | HORIE, Mikio       | Polymer Robots, Micromachines, MEMS/MOEMS, Micromotionsystems |         |
| Associate Professor | SATO, Kaiji        | Precision Mechatronics, Control Engineering, Microsystems     |         |
| Associate Professor | MATSUMURA, Shigeki | Vibration Measurement and Analysis                            |         |
| Professor           | YOSHIDA, Kazuhiro  | Fluid Micromachines   |         |
| Associate Professor | YANAGIDA, Yasuko   | Bioengineering  |         |
| Associate Professor | TADANO, Kotaro     | Medical Robots, Man-Machine System                            |         |
| Associate Professor | SATO, Chiaki       | Adhesion technology, Composite materials                      |         |
| Associate Professor | TAKAYAMA, Toshio   | Medical tool, Mobile robot, Robotics                          |         |
| Associate Professor | KIM, Joon-wan      | MEMS, Micro Mechatronics, Bio Mechatronics                    |         |
| Associate Professor | *YOSHIOKA, Hayato  | Ultraprecision machine tool                                   |         |

\*indicates person who belongs to other department.

**(34) Dept. of Computational Intelligence and Systems Science**

| ACADEMIC ADVISOR |                      | RESEARCH FIELD   | REMARKS |
|------------------|----------------------|--|---------|
| Professor        | TERANO, Takao        | Agent-Based Social System Science, Computational Organization Theory, Service Science          |         |
| Professor        | NITTA, Katsumi       | Artificial Intelligence, Human Computer Interaction  |         |
| Professor        | KONAGAYA, Akihiko    | Biomedical Informatics, Knowledge Science, Inverse Problem Solving, Molecular Robotics         |         |
| Professor        | DEGUCHI, Hiroshi     | Evolutionary Economics, Agent-Based Modeling & Simulation, Service System                      |         |
| Professor        | WATANABE, Sumio      | Statistical Learning Theory, Mathematical Physics  |         |
| Professor        | KABASHIMA, Yoshiyuki | Statistical Mechanics, Information Theory  |         |
| Professor        | MIYAKE, Yoshihiro    | Co-creation System, Human Communication, Cognitive Science, Self-Organization, Human Interface |         |



|                     |                     |  |  |
|---------------------|---------------------|--|--|
| Professor           | NAKAMURA, Kiyohiko  | Brain Science, Computational Neuroscience  |  |
| Professor           | YAMAMURA, Masayuki  | DNA Computing, Natural Computing, Systems Biology  |  |
| Professor           | NAKAMOTO, Takamichi | Human interface, Olfactory display, Odor sensing system, Sensor information processing           |  |
| Associate Professor | MUROFUSHI, Toshiaki | Set Functions, Piecewise Linear Functions, Information Visualization, Formal Concept Analysis    |  |
| Associate Professor | ISHII, Hideaki      | Systems and Control, Control Over Networks   |  |
| Associate Professor | DONG, Fangyan       | Computational Intelligence, Combinatorial Optimization   |  |
| Associate Professor | TAKAYASU, Misako    | Statistical Physics, Econophysics, Complex Networks  |  |
| Associate Professor | AONISHI, Toru       | Computational Neuroscience, Statistical Mechanics  |  |
| Associate Professor | TAKINOUE, Masahiro  | Biophysics, Nonlinear nonequilibrium science, Microfluidics, Artificial Cell, Molecular Robotics |  |
| Associate Professor | ONO, Isao           | Evolutionary Computation, Optimization   |  |
| Associate Professor | MIYASHITA, Eizo     | Systems Neuroscience   |  |
| Associate Professor | KIGA, Daisuke       | Synthetic Biology, Genetic Code, DNA Computing   |  |
| Associate Professor | TAKAMURA, Hiroya    | Natural Language Processing, Computational Linguistics   |  |
| Associate Professor | HASEGAWA, Shoichi   | Virtual Reality, Human Interface, Dynamic Simulation, Haptics, Entertainment Computing           |  |
| Associate Professor | HASEGAWA, Osamu     | Pattern based Artificial Intelligence, Artificial Brain (SOINN), Cognitive Robotics              |  |

**(35) Dept. of Information Processing**

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD   | REMARKS |
|---------------------|-------------------|--|---------|
| Professor           | KOBAYASHI, Takao  | Speech Signal Processing, Human-Computer Interaction, Digital Signal processing                            |         |
| Professor           | OHYAMA, Nagaaki   | Optical Information Processing, Medical Image Engineering, Imaging Systems                                 |         |
| Professor           | KUMAZAWA, Itsuo   | Neural Networks, Cognitive Science, Image Processing, Image Encoding, Pattern Recognition, User Interfaces |         |
| Professor           | OKUMURA, Manabu   | Natural Language Processing, Text Summarization, Text Mining, Sentiment Analysis                           |         |
| Professor           | ITOH, Toshiya     | Complexity Theory, Approximation Algorithms, Online Algorithms   |         |
| Professor           | KOIKE, Yasuharu   | Human Interface, Computational Neuroscience  |         |
| Associate Professor | YOSHIMURA, Natsue | Human Interface, Computational Neuroscience  |         |
| Visiting Professor  | KASHINO, Makio    | Auditory Information Processing, Cognitive Brain Science, Psychophysics                                    |         |

|                              |                     |  |  |
|------------------------------|---------------------|--|--|
| Associate Professor          | OBI, Takashi        | Image Reconstruction, Information Security, Social Information System  |  |
| Associate Professor          | SHINOZAKI, Takahiro | Speech Recognition, Speech Signal Processing, Machine Learning   |  |
| Associate Professor          | SUGINO, Nobuhiko    | Code Optimization Methods for VLIWs and GPGPU, Automatic Parallelizing Compilers, Implementation Techniques of Digital Signal Processing |  |
| Associate Professor          | KUROSAWA, Minoru    | Electro-mechanical Transducer, Actuators and Sensors, Mechatronics   |  |
| Associate Professor          | KANEKO, Hirohiko    | Visual Information Processing, Human Space Perception, Sensory and Motor Measurements  |  |
| Professor                    | YAMAGUCHI, Masahiro | Optical Imaging and Display Color Imaging, Holography  |  |
| Professor                    | NAKAMURA, Kentaro   | Optical Sensing, Applied Acoustic Devices  |  |
| Associate Professor          | TABARU, Marie       | Acoustic and Optical Instrumentation, Biomedical Measurement   |  |
| Visiting Associate Professor | SATO, Imari         | Computer Vision, Computer Graphics, Image-Based Modeling and Rendering   |  |
| Visiting Associate Professor | WATANABE, Junji     | Cognitive Psychology, Media Technology   |  |

\*indicates person who belongs to other department.

## Graduate School of Information Science and Engineering

### (36)Dept. of Mathematical and Computing Sciences

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD  | REMARKS |
|---------------------|--------------------|---|---------|
| Professor           | KOJIMA, Sadayoshi  | Topology, Experimental Mathematics                      |         |
| Professor           | MASUHARA, Hidehiko | Programming Languages, Software Development Environment |         |
| Professor           | *MATSUOKA, Satoshi | High-Performance Computing, Grid Computing              | GSIC    |
| Professor           | MIYOSHI, Naoto     | Applied Probability, Stochastic Models                  |         |
| Professor           | NISHIBATA, Shinya  | Theory of Partial Differential Equations                |         |
| Professor           | UMEHARA, Masaaki   | Differential Geometry                                   |         |
| Professor           | WATANABE, Osamu    | Theory of Computing, Algorithms                         |         |
| Associate Professor | *ENDO, Toshio      | High-Performance Computing, Parallel Software           | GSIC    |
| Associate Professor | FUKUDA, Mitsuhiro  | Mathematical Optimization, Continuous Optimization      |         |
| Associate Professor | KASHIMA, Ryo       | Mathematical Logic, Non-Classical Logics                |         |
| Associate Professor | MIURA, Hideyuki    | Theory of Partial Differential Equations                |         |

|                     |                   |   |  |
|---------------------|-------------------|---|--|
| Associate Professor | SHUDO, Kazuyuki   | Distributed Systems   |  |
| Associate Professor | SUZUKI, Taiji     | Statistics, Machine Learning  |  |
| Associate Professor | TANAKA, Keisuke   | Theory of Cryptography, Theory of Computation                             |  |
| Associate Professor | TERASHIMA, Yuji   | Differential Topology, Mathematical Physics, Arithmetic Topology          |  |
| Associate Professor | WAKITA, Ken       | Social Network Analysis, Information Visualization, Programming Languages |  |
| Associate Professor | YAMASHITA, Makoto | Mathematical Optimization, Continuous Optimization                        |  |

\*indicates person who belongs to other department.

### (37a) Dept. of Mechanical and Environmental Informatics (Mechano-Informatics Group)

| ACADEMIC ADVISOR    |                    | RESEARCH FIELD   | REMARKS |
|---------------------|--------------------|--|---------|
| Professor           | AMAYA, Kenji       | Inverse Problems, Computational Mechanics, Electrochemical Analysis, Optical Analysis        |         |
| Professor           | IMURA, Jun-ichi    | Robot Intelligent Control, Control Theory Hybrid Systems Theory                              |         |
| Professor           | KIMURA, Koji       | Vibration, Stochastic Dynamics, Nonlinear Dynamics   | *       |
| Professor           | NAKASHIMA, Motomu  | Sports Engineering, Biomechanics, Biorobotics, Musculoskeletal Analysis, Welfare Engineering |         |
| Professor           | SASAJIMA, Kazuyuki | Precision Instrumentation, Surface Integrity   |         |
| Associate Professor | HARA, Seiichiro    | Surface Metrology, Measurement Information Processing  |         |
| Associate Professor | HAYAKAWA, Tomohisa | Control Theory, Dynamical Systems Theory   |         |
| Associate Professor | MIYAZAKI, Yusuke   | Biomechanics, Injury Preventive Engineering, Digital Human Modeling                          |         |
| Associate Professor | NAKAO, Hiroya      | Nonlinear Dynamics, Stochastic Processes, Self-organization Phenomena                        |         |
| Associate Professor | YAGI, Tohru        | Neural Engineering, Human Interface, Vision  |         |

\*contact the department

### (37b) Dept. of Mechanical and Environmental Informatics (Environmental Informatics Group)

| ACADEMIC ADVISOR |                    | RESEARCH FIELD   | REMARKS |
|------------------|--------------------|--|---------|
| Professor        | NADAOKA, Kazuo     | Coastal Ecosystem Conservation Studies, Integrated Coastal Zone Management, Coastal Oceanography and Engineering |         |
| Professor        | HIROSE, Sohichi    | Applied Mechanics<br>Nondestructive Evaluation   |         |
| Professor        | OSARAGI, Toshihiro | Spatial Analysis and Planning<br>Spatial Information Science   |         |
| Professor        | HIGUCHI, Yoichiro  | Socio-Economic Interactions<br>Econometrics  |         |

|                     |                       |   |  |
|---------------------|-----------------------|---|--|
| Associate Professor | MIKAMI, Takamasa      | Performance Evaluation of Building Elements<br>Safety Evaluation of Residential Environment |  |
| Associate Professor | SOSHIRODA, Akira      | Tourism Planning<br>Development Process of Resorts  |  |
| Associate Professor | KAGI, Naoki           | Environmental Engineering<br>Air Quality  |  |
| Associate Professor | MATSUSHITA, Yukitoshi | Statistics<br>Econometrics  |  |
| Lecturer            | NAKAMURA, Takashi     | Coastal Ecosystem Modeling<br>Biogeochemistry   |  |

**Graduate School of Decision Science and Technology**  
**(38) Dept. of Value and Decision Science**

| ACADEMIC ADVISOR    |                   | RESEARCH FIELD  | REMARKS |
|---------------------|-------------------|---|---------|
| Professor           | INOHARA, Takehiro | Social Modeling, Decision Making  |         |
| Professor           | SAKANO, Tatsuro   | Organizational Design, Planning Theory, Public Management   |         |
| Professor           | GOTO, Mika        | Economics, Organization Efficiency Evaluation, Energy Industry Study  |         |
| Professor           | IKEGAMI, Masako   | Security Studies, Peace & Conflict Research, Science & Technology Policy & Decision-making Analysis, Arms Control & Disarmament |         |
| Professor           | *UEDA, Noriyuki   | Cultural Anthropology   |         |
| Professor           | *LIU, An Wei      | Studies of Cultural Exchanges between Japan and China, Comparative Literature   |         |
| Professor           | *DEGUCHI, Hiroshi | Evolutionary Economics, Agent-Based Modeling  |         |
| Professor           | *NITTA, Katsumi   | Artificial Intelligence, Argumentation Support Systems  |         |
| Associate Professor | KANEKO, Hironao   | Legal Studies (esp. Civil Procedure Law, IT Law)  |         |
| Associate Professor | NAKAMARU, Mayuko  | Social Simulation, Mathematical Modeling, Human Behavior and Evolution  |         |
| Associate Professor | TANIGUCHI, Naoko  | Statistics, Political Science   |         |
| Associate Professor | *ITO, Asa         | Aesthetics, Contemporary Art  |         |
| Associate Professor | *EGAWA, Midori    | Organizational Behavior, Mental Health, Innovative Sustainable Society  |         |
| Associate Professor | *ZHAN, Xiaomei    | Chinese and Japanese Art History, Japanese Studies  |         |

\*indicates a person who belongs to another department.

**(39) Dept. of Social Engineering**

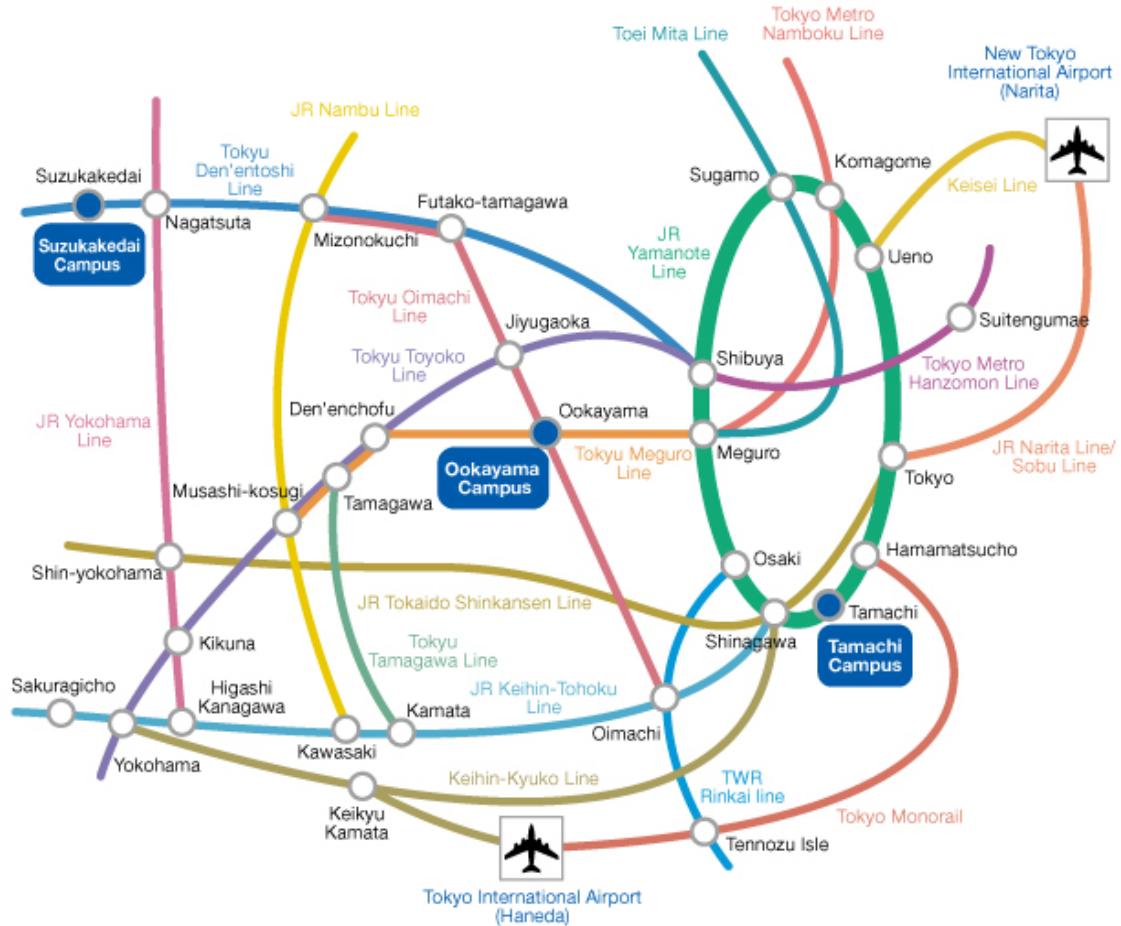
| ACADEMIC ADVISOR    |                        | RESEARCH FIELD  | REMARKS |
|---------------------|------------------------|---|---------|
| Professor           | *HIGUCHI, Yoichiro     | Socio-Economic Networks, Econometrics   |         |
| Professor           | MATSUI, Tomomi         | Optimization Theory, Combinatorics, Operations Research                                 |         |
| Professor           | NAKAI, Norihiro        | Urban Planning, Urban Policy, Urban Design  |         |
| Professor           | SAITO, Ushio           | Landscape Planning and Design   |         |
| Professor           | YAMAMURO, Kyoko        | History of Japan  |         |
| Professor           | YAMATO, Takehiko       | Economic Theory, Experimental Economics   |         |
| Associate Professor | DOHI, Masato           | Community Planning and Design   |         |
| Associate Professor | KAWASAKI, Ryo          | Mathematical Economics, Game Theory   |         |
| Associate Professor | MANO, Yosuke           | Urban Planning  |         |
| Professor           | MASUI, Toshihiko       | Environmental Economic Modeling   |         |
| Associate Professor | KANAMORI, Yuko         | Environmental Economic Modeling   |         |
| Associate Professor | OHDOI, Ryoji           | Dynamic Macroeconomics  |         |
| Associate Professor | SHIOURA, Akiyoshi      | Discrete Optimization, Operations Research, Design and Analysis of Mathematical Systems |         |
| Associate Professor | *SOSHIRODA, Akira      | Regional Planning, Resort and Tourism Planning  |         |
| Associate Professor | *MATSUSHITA, Yukitoshi | Statistics, Econometrics  |         |

\*indicates person who belongs to other department



# MAP

- The **Ookayama campus** is a one-minute walk from Ookayama Station
- The **Suzukakedai campus** (former Nagatsuta campus) is a 5-minute walk from Suzukakedai Station
- The **Tamachi Campus** is a 2-minute walk from Tamachi Station



May 2015

Tokyo Institute of Technology

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