

Spring Semester 2019 Admission

International Students Entrance Examination

**Guidelines for International Science
and Engineering Course
(English-based Program)**

**Graduate School of
Science and Engineering**

**Kansai University
Graduate School**

Admissions Policy

The rapid expansion of science and technology demands qualified researchers and engineers who obtain the ability to discover and solve problems along with a broad perspective that encompasses various fields. The Graduate School of Science and Engineering seeks to educate the students for researchers and highly skilled professionals who will utilize their academic experiences to contribute to the improvement of the human welfare in the perspective of science and engineering. Applicants should possess a certain level of scholastic ability as well as intellectual curiosity and mental strength to pursue their studies. In addition to the General Entrance Examination, the Graduate School offers a variety of entrance examinations including an Entrance Examination for International Students and Entrance Examination for Mature Students as part of its commitment to actively accept students from different backgrounds.

Admitting Program Majors and Disciplines

Program	Major	Disciplines
Master's Degree	Engineering Science	Mathematics Electrical, Electronic and Information Engineering
	Chemistry, Materials and Bioengineering	Life Science and Biotechnology
Ph.D. Degree	Integrated Science and Engineering	Mathematics
		Electrical, Electronic and Information Engineering
		Life Science and Biotechnology

Enrollment Capacity

Both Master's Degree Program and Ph.D Degree Program recruit a few people at each discipline.

Qualifications

Master's Degree Program

Applicants shall satisfy one of the following(1) ~ (3) conditions:

(including applicants who are expected to satisfy one of the following(1) ~ (2) conditions before enrolling at the Graduate School)

- (1) Applicants who have completed a regular 16-year program of school education outside Japan.
- (2) Applicants who have completed a 3 or more year program and have been awarded a degree by an overseas university or school* which is recognized as being equivalent to a bachelor's degree.
(*the 2016 ordinance of the Ministry of Education, Culture, Sports, Science and Technology, No. 19)
- (3) Applicants who are recognized as having scholastic abilities equivalent or superior to the graduates of university through Qualification Screening for Entrance Examination of the Graduate School. (This requirement shall not apply to the foreigners who are recognized as having received Japanese regular school education program.)

Ph.D. Degree Program

Applicants shall satisfy one of the following(1) ~ (2) conditions:

(including applicants who are expected to satisfy one of the following(1) condition before enrolling at the Graduate School)

- (1) Applicants who have received a master's or professional degree at the graduate schools outside Japan.
- (2) Applicants who are recognized as having degrees equivalent or superior to a master's degree by the Graduate School and have reached the age of 24 (before enrolling at the Graduate School) This requirement shall not apply to the foreigners who are recognized as having received Japanese regular school education program.

Entrance examination schedule for the 2019 academic year

Step		Deadline and Periods
①	Advance contact	October 6 (Fri), 2018
②	Submission of required documents for Application	November 22 (Thu), 2018
③	Notification of qualification screening result	December 13 (Thu), 2018
④	Payment of application fee	December 21 (Fri) to January 11 (Fri), 2019
⑤	Announcement of result	March 1 (Fri), 2019
⑥	Enrollment step I-(1) Enrollment step I-(2) and II	March 1 (Fri) to March 15 (Fri), 2019

Admissions Flow

Before Application Process	①	Advanced contact	Contact the Graduate School Admissions Group by e-mail with the following information by the deadline. 【Contact address: kugrd-exam@ml.kandai.jp】 (1) Your CV. (2) The program, major, discipline and/or academic advisor in which you are interested. (3) Your major in the undergraduate school and your desiring major and discipline to study in the Graduate School.
	We will inform you of the e-mail address of a prearranged academic advisor. Contact the advisor by e-mail to discuss your research plan thoroughly and receive instructions and advices about your further application processes. If the eligible candidate of your academic advisor is determined through this process, a confirmation letter will be issued and sent with an attachment by e-mail. This letter includes the information for whether an interview and/or written examination in academic subjects will be required for the screening process. It will also inform you of the requirement for the certificate of English language proficiency.		
	②	Submission of required documents	Submit all of your application documents to the Graduate School Admissions Group by the deadline.
	③	Notification of qualification screening results	Qualification screening results for applicants will be sent from the Graduate School Admissions Group on the designated date.
Application	④	Payment of application fee	After passing the qualification screening, pay the application fee during the designated period.

After Application	⑤	Notification of Result	Results of success or failure will be sent to the applicant by EMS on the designated date.
	⑥	Enrollment step I- (1) Enrollment step I- (2) and II	Payment of admission fees, tuition and other fees by the deadline. Online registration and submission of documents by the deadline.

Submitting the application documents

Place the application documents in a 240×332 mm envelope, apply the mailing label*, and submit it to the appropriate address (see below) during the designated range of dates.

*Print the mailing label from the application document download section of the website.

Applicants residing inside Japan

[Delivery by hand]

Submit your application documents to the Graduate School Admissions Group (1F of SHIN-KANSAIDAIGAKU-KAIKAN North Bldg.) between 10:00 am and 4:00 pm during the designated period.

[Submission by mail]

Mail your application documents by simple registered express mail during the designated period.

(All documents must be received by the deadline.)

Applicants residing outside Japan

Send your application documents through Express Mail Service (EMS) or the international delivery service.

E-mail your tracking number to the Graduate School Admissions Group.

Fill the required matters in 'Address seal for the return envelope' and send it together with the application documents.

Address:

Kansai University Graduate School Admissions Group
3-3-35, Yamate-cho Suita-shi , OSAKA 564-8680 JAPAN

Tel: +81-6-6368-1407

E-mail: kugrd-exam@ml.kandai.jp

Paying the application fee

(1) Application fee

Applicants must pay the application fee of ¥35,000 during the designated period.

The application fee is not refundable.

(2) Method of payment

Payment by bank transfer (Applicants residing inside Japan only)

Applicants must use the prescribed payment slip for transfers from their bank.

Application without an authorized receipt will not be accepted. Remittance from the headquarters and branches at the financial institutions listed on the payment slip will not required a transaction fee.

*Remittance through an automated teller machine (ATM) or from Japanese Post Bank will not be accepted.

Remittance from financial institutions (Applicants residing outside Japan only)

Applicants must send their application fee through a bank transfer. Follow the procedures below. Make sure to pay ¥2,500 as Bank Charges in Japan in addition to the application fee.

Type of transfer	Telegraphic Transfer
Method of transfer	Advise and Credit
Charges of transfer	Local charges borne by remitter and overseas charges by beneficiary. (SHA) Please be sure to choose 'SHA' on the application form.
Currency	JPY
Amount of transfer	¥37,500 (Application Fee ¥35,000 + ¥2,500 for Japanese bank handling fee) ※1 The applicants must bear all the charges incurred by the bank in the applicant's country. ※2 Please note that the balance will not be refunded even if the bank charges in Japan do not exceed ¥2,500.
Account of transfer	
Bank	Resona Bank, Ltd.
Branch	Tenroku Branch
Address of bank	7-1-24, Tenjinbashi Kita-ku Osaka-shi, OSAKA 530-0041, Japan
Swift Address	DIWAJPJT
Account Type	Ordinary Account
Account number	8350312
Account Holder	Kansai University
Holder's Address	3-3-35, Yamate-cho Suita-shi, OSAKA 564-8680 Japan

Caution on transferring

1. The name of the remitter should be same as the name of the applicant.
2. In case of an overseas transfer, you should enclose a copy of the transfer certificate with the seal or the stamp of the bank or the international transfer application form together with the application documents.

The examination admission slip

The Graduate School will send the applicant the admission slip no later than one week prior to the date of the entrance examination. If you do not receive your admission slip three days before the examination, please contact to the Graduate School Admissions Group.

Application documents

Clearly note the document number at the bottom right of each application document based on the mailing label.

Document to be submitted (document number)	Remarks
Documents to be submitted by all applicants	
Application form (Form 1)	Use the form designated by the University.
Statement of reason for applying (Form 2)	Use the form designated by the University.
A copy of the confirmation letter of the eligible candidate of your academic advisor. (3)	This letter will be issued after the determination of your eligible candidate of your academic advisor. It will be sent by attachment in e-mail. Send a copy of the document with your signature.
Original transcript from all universities and / or other institutions previously attended, or a notarized document certifying courses and grades (4)	Original document only. Document must be in English. If you have transferred from another universities to your current university, submit transcripts from all previous universities and other institutions as well. Submit an original transcript or transcripts that have been notarized by an embassy or other public institutions.

Original certificate of (expected) graduation from previously attended universities and / or other institutions, or a notarized document certifying (expected) graduation (5)	Original document only. Document must be in English. This document does not need to be submitted if your transcript indicates or certifies your (expected) graduation or completion. Submit an original certificate of (expected) graduation, or a certificate of (expected) graduation that has been notarized by an embassy or other public institutions.
Research plan in English (6)	For applicants to the Master Degree Program; About 1,000 words in length. For applicants to the Ph.D Degree Program; About 2,000 words in length. Submit one original and three copies.
Document certifying English Language Proficiency (7)* *Requirement of this document will be indicated in the confirmation letter.	Submit one of the followings: <ul style="list-style-type: none"> · TOEFL Official Score Report iBT® · TOEIC® L&R Official Score Certificate · IELTS Test Report Form Test results within two years from the date of application are valid. TOEIC® IP test and TOEFL ITP® test are not accepted. Notes: Applicants who meet one of the following conditions are exempted from submission of the document. <ol style="list-style-type: none"> 1. Those who have completed a Bachelor's degree program taught in English or are expected to complete such a program by the time of enrollment. 2. Those who are recognized by the Graduate School as possessing an equivalent qualification to the above requirement.
Letter of recommendation in English (Form 8)	Use the form designated by the University. Two letters* of recommendation from different references. Each to be written by an appropriate person such as a faculty member of an educational institution (including the schools you attended), a member of a research institution or corporation. It must: <ul style="list-style-type: none"> · be signed by the reference · be issued not more than 6 months ago · show the issuing date · show the contact information (telephone number and e-mail address) of the reference The references are required to enclose the form in an envelope, seal it, sign it across the seal, and return it to the applicant. *Notes: Those who get special permission from your eligible candidate of the academic advisor, submission of one of the two letters is not mandatory.
Copy of ID or passport (9)	For a passport, submit a copy of pages showing your name, date of birth, photograph, expiration date, and history of past entries to and departures from Japan (if you have previously been to Japan). For applicants who already reside in Japan, submit both sides of copy of your resident card.
Two photographs (10)	Affix a photographs taken within the last three months to each of the application form and the statement of reason for applying in English. (The photograph affixed to your application form will be used on the student ID issued after enrollment.)
Applicants to the Master's Degree program	
Copy of the applicant's graduation thesis, term paper, or publications (11)* *If available	4 copies If the graduation thesis, term paper, or publications are written in a foreign language other than English, submit an English version.

Applicants to the Ph.D. Degree Program	
Copy of master's thesis (12)	4 copies If the master's thesis is written in a language other than English, submit an English version.
Outline of master's thesis in English (13)	About 2,000 words in length. Submit one original and four copies.
Achievements(14)* * If available	Copies of academic articles, conference presentations, research reports and any other research papers written in English

Submit your certificate of (expected) graduation on which both of the entrance and (expected) graduation dates are listed.

Screening method

Screening will be conducted by reviewing the application materials and documents.

If an additional interview and/or academic examination is deemed necessary, the applicant will be informed of the contents and date of the examination/interview on the day when the qualification screening results are announced.

Checking the announced results

Your results of success or failure will be sent by express mail Service (EMS) on the date of the announcement of results.

This is the only official notification you will receive. You may receive your notification two or more days after this date.

Note 1: The University is not liable for any incidents that occur while your notification is in transit (loss or leakage of personal information and such).

Note 2: The University will not display the entrance examination results at any campus.

Note 3: The University cannot accept inquiries by phone concerning the results.

Note 4: If you fail to take any of the written or oral examination, you will not be notified of your results.

Note 5: The number of applicants who have passed the entrance examination can be seen at each graduate school's entrance examination information website for a specified period of time.

Enrollment steps

Applicants who passed the entrance examination will receive a number of documents in the mail, including a notification of the passing result, and a payment slip for enrollment. Follow the enclosed instructions. You will not be able to enroll if you fail to complete the process by the designated deadline.

In detail refer to 'Enrollment Procedures' (page 7)

Cautionary notes

1. Statement of reasons for applying

- (1) Choose and enter your desired field, advisor, and other information while referring to "List of Academic Advisors of Graduate School of Science and Engineering" (page 11).
- (2) Once you choose and enter the field, advisor, and other information, they cannot be changed.
- (3) Be sure to fill in the "Graduate (or Master's degree) thesis topic" field on the statement of reason for applying, even if your choice is a tentative one. If you do not have a graduate (or Master's degree) thesis or if you do not have an academic advisor, enter as "None."

- (4) Enter your name exactly same as it appears on your resident card or passport.
- (5) If you fill in the application documents by hand, use a black ink or ballpoint pen. If you are using a computer or other means to complete the forms according to the instruction of the Graduate School to which you are applying, enter the requested information in the designated form and print it out without modifying the format.

2. Others matters

- (1) If your name on a certificate differs from the name when you apply, submit a separate official certificate or other document that establishes your identity.
- (2) The certificates must be in Japanese, English. If you are submit one or more certificates in another languages, you must submit a Japanese or English version issued by an embassy or other public institutions to them.
- (3) If you fail to submit all application documents by the application deadline, your application may not be recognized as valid.
- (4) Once received, documents will not be returned.
- (5) Inquiries concerning the application process shall be directed to the University on days other than the followings, when offices are closed:
 - * Sundays and public holidays
 - * Every Saturday from August 1 (Wed), to September 20 (Thu), 2018
 - * August 11 (Sat), to August 19 (Sun), 2018
 - * December 26 (Wed), 2018, to January 6 (Sun), 2019

Entrance examination considerations

The Graduate School will make special arrangements in the administration of entrance examinations and in the learning environment after enrollment for individuals with special needs such as physical disabilities, injuries, illnesses, or other circumstances. Please contact the Graduate School Admissions Group by the starting date for applications.

Without notice by the designated date or contact in advance, such arrangements may not be properly prepared. If the accidents, injuries or illnesses occur after application, notify the facts to the office as soon as possible.

Enrollment procedures

(1) Enrollment step I-(1) (payment of admission fee<enrollment and registration fees>)

The fees should be paid through the designated bank transfer form by 1:00 pm on the day of the deadline.

Once paid, the enrollment and registration fees will not be refundable.

Note: Graduates of Kansai University and Kansai University graduate school can skip this step as they are not required to pay admission fee<enrollment and registration fees>.

(2) Enrollment step I-(2) (payment of tuition and other fees)

Enrollment step II (online registration and submission of documents)

Enrollment documents will be sent together with notification of the results. Pay tuition and other fees and submit the required documents in accordance with the instructions on the Enrollment Process Information (II).

These charges and fees should be paid through the designated bank transfer form by 1:00 pm on the day of the deadline.

Please contact the Graduate School Admissions Group in the following cases:

- If your address changes after you passed the entrance examination.

Kansai University is not liable for documents that could not be delivered or that were delayed.

If the enrollment steps are not completed by the due date accordingly, you cannot enroll.

(3) Method of payment

Use the designated bank transfer form and wire funds from your local bank, or other financial institutions. Do not transfer funds from an automated teller machine (ATM). Additionally, funds cannot be transferred from Japan Post Bank or convenience stores.

*Refunds of tuition and other fees upon withdrawal

Enrollees who request to withdrawal by March 30(Sat), 2019, for a legitimate reason, can request to refund their paid tuition.

(For specific steps, see the Enrollment Process Information (II).)

Tuition for 2019

Master's Degree Program

(in Yen)

Category		2019 academic year		2020 and subsequent academic years (annual payment)
		Spring Semester	Fall semester	
Educational Expenses	Admission Fee	130,000	—	—
	Tuition	569,500	569,500	1,139,000
Other Fees	Alumni Fee	10,000	—	20,000
Total		709,500	569,500	1,159,000

Ph.D. Degree Program

(in Yen)

Category		2019 academic year		2020 academic year (annual payment)	2021 and subsequent academic years (annual payment)
		Spring Semester	Fall semester		
Educational Expenses	Admission Fee	130,000	—	—	—
	Tuition	409,500	409,500	819,000	819,000
Other Fees	Alumni Fee	10,000	—	20,000	—
Total		549,500	409,500	839,000	819,000

Notes

1. Graduates of Kansai University or Kansai University Graduate Schools, and undergraduates at the university who satisfy the requirements described by 1-11 of Article 46 Paragraph of the Graduate School Rules are not required to pay the admission fee (enrollment and registration fee) when continuing their studies at one of the Graduate Schools.
2. Graduates of the Kansai University Japanese Language and Culture Program Preparatory Course (Ryugakusei-Bekka) who continue their studies at one of the Faculties or Graduate Schools are eligible to receive a 50% discount on the admission fee (enrollment and registration fee). The same applies to students of the Preparatory Course who opt to continue their studies at one of the Faculties or Graduate Schools before finishing the program.

3. The University collects ¥10,000 at the time of enrollment and then ¥20,000 at the every following academic year on behalf of the Alumni Association. Dues are not collected from students who have already paid them as graduates of the University (including any of the Graduate Schools).

Scholarship Information for the 2019 academic year

The scholarships listed on this page are available for students enrolling at the spring semester of the 2019 academic year.

* In all cases, only a small number of recipients are available. For more information such as records about scholarships, contact the staffs put at the bottom of this page.

[1] Kansai University Graduate School Scholarship (awarded for the persons with excellent grades in the Graduate School) (to currently enrolled students)

Award-type * Application-based

Eligibility	Graduate School students with excellent grades who are in difficulty to continue to study for economic reasons.
Awards Amount	See the figure below.
Duration of Award	for one year (You can apply next year again.)

[2] Kansai University Mature Students Scholarship (awarded for excellent working adult graduate students)

Award-type * Application-based

Eligibility	Mature Graduate School students with excellent grades who have gained superior accomplishment in their Graduate School.
Awards Amount	See the figure below.
Duration of Award	for one year (You can apply next year again.)

Awards Amount

Degree Program	Yearly Awards Amount (yen)
Master's Degree Program	375,000
Ph.D. Degree Program	250,000

Inquiries

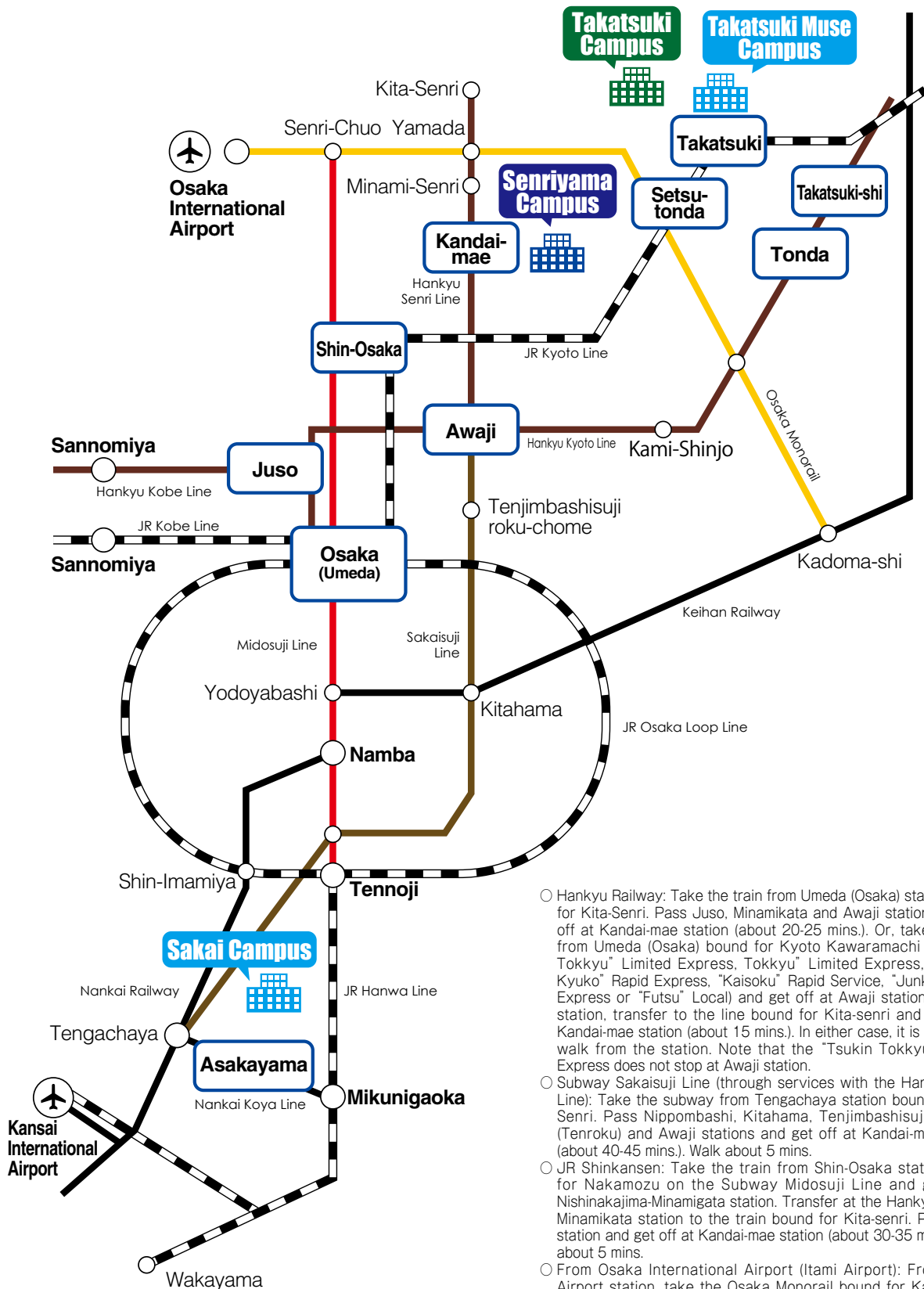
Senriyama Campus (Student Services Bureau, Scholarships and Financial Assistance Group)

3-3-35 Yamate-cho, Suita 564-8680

Phone: 06-6368-1121 (operator)

Hours: 9:00 am to 7:00 pm (except Saturdays, Sundays, public holidays, and university holidays)

Getting to Kansai University



- Hankyu Railway: Take the train from Umeda (Osaka) station bound for Kita-Senri. Pass Juso, Minamikata and Awaji stations and get off at Kandai-mae station (about 20-25 mins.). Or, take the train from Umeda (Osaka) bound for Kyoto Kawaramachi ("Kaisoku Tokkyu" Limited Express, Tokkyu" Limited Express, "Kaisoku Kyuko" Rapid Express, "Kaisoku" Rapid Service, "Junkyu" Semi-Express or "Futsu" Local) and get off at Awaji station. At Awaji station, transfer to the line bound for Kita-senri and get off at Kandai-mae station (about 15 mins.). In either case, it is a 5-minute walk from the station. Note that the "Tsukin Tokkyu" Limited Express does not stop at Awaji station.
- Subway Sakaisuji Line (through services with the Hankyu Senri Line): Take the subway from Tengachaya station bound for Kita-Senri. Pass Nippombashi, Kitahama, Tenjimbashisuji 6-chome (Tenroku) and Awaji stations and get off at Kandai-mae station (about 40-45 mins.). Walk about 5 mins.
- JR Shinkansen: Take the train from Shin-Osaka station bound for Nakamozu on the Subway Midosuji Line and get off at Nishinakajima-Minamigata station. Transfer at the Hankyu Railway Minamikata station to the train bound for Kita-senri. Pass Awaji station and get off at Kandai-mae station (about 30-35 mins.). Walk about 5 mins.
- From Osaka International Airport (Itami Airport): From Osaka Airport station, take the Osaka Monorail bound for Kadoma-shi. Pass Hotarugaie and Senri-chuo stations and get off at Yamada station. Transfer at the Hankyu Railway Yamada station to the train bound for Tengachaya or Umeda and get off at Kandai-mae station (about 30-35 mins.). It is a 5-minute walk from the station.

Note: When asking directions for taking an entrance examination at the Kansai University Senriyama Campus or giving your destination to a taxi driver, clearly state that you are going to "Senriyama no Kansai Daigaku." Kansai University has multiple campuses (Senriyama, Takatsuki, Takatsuki Muse and Sakai). Also, a simple "Kandai" may be mistaken for "Handai" – the shortened name for Osaka University in Suita and the neighboring Toyonaka. Arriving at the wrong location may prevent you from taking the examination.

List of Academic Advisors of Graduate School of Science and Engineering
for the 2019 academic year

Mathematics	12~13
Electrical, Electronic and Information Engineering	14~18
Life Science and Biotechnology.....	19~22

Mathematics

Research field	Academic Advisors list	
Cohomological Aspects in Mathematics	<p>KUSUDA Masaharu</p> <p>Professor</p> <p>Doctor of Engineering</p> <p>Department of Mathematics</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Crossed product of a Hilbert C^*-module</p> <p>② Properties of invariant states in a C^*-dynamical system</p> <p>③ Crossed product of a C^*-algebra</p> <p>④ Fixed point algebra of a C^*-algebra by compact group actions</p> <p>⑤ Mathematical physics, quantum statistical Mechanics</p> <p>Key Words</p> <p>Functional Analysis, Operator Algebras, C^*-algebras, C^*-Dynamical System, C^*-Crossed Product, Extension of States, Hereditary C^*-Subalgebra, Hilbert C^*-Module, Morita Equivalence, Scattered C^*-Algebra</p> <p>E-mail: kusuda@kansai-u.ac.jp</p>
	<p>FUJIOKA Atsushi</p> <p>Professor</p> <p>Doctor of Mathematical Sciences</p> <p>Department of Mathematics</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Differential geometry related to integrable systems</p> <p>② Geometric variational problems</p> <p>③ Affine differential geometry</p> <p>Key Words</p> <p>Harmonic maps, Minimal surfaces, Surfaces with constant mean curvature, Integrable systems, Variational problems, Affine differential geometry</p> <p>E-mail: afujioka@kansai-u.ac.jp</p>
	<p>MURABAYASHI Naoki</p> <p>Professor</p> <p>Doctor of Science</p> <p>Department of Mathematics</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① The arithmetic of abelian varieties with complex or quaternionic multiplication</p> <p>② The relationship between abelian varieties and automorphic forms</p> <p>Key Words</p> <p>Abelian Variety, Complex Multiplication, Quaternionic Multiplication, Field of Moduli, Field of Definition, Defining Equation, Rational Point</p> <p>Applications</p> <p>Cryptography Theory</p> <p>E-mail: murabaya@kansai-u.ac.jp</p>
	<p>YANAGAWA Kohji</p> <p>Professor</p> <p>Doctor of Science</p> <p>Department of Mathematics</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Combinatorial commutative algebra</p> <p>② Application of the derived category and sheaf theory to the above area</p> <p>③ Oriented Matroid</p> <p>Key Words</p> <p>Stanley-Reisner Ring, Derived Category, Constructible Sheaf, Local Duality, Dualizing Complex, Poicare-Verdier Duality, (Affine) Oriented Matroid</p> <p>Applications</p> <p>Computational Algebra</p> <p>E-mail: yanagawa@kansai-u.ac.jp</p>
	<p>WAKUI Michihisa</p> <p>Associate Professor</p> <p>Doctor (Science)</p> <p>Department of Mathematics</p> <p>Faculty of Engineering and Science</p> <p>Master's Program</p>	<p>Research Topics</p> <p>① Quantum invariants of knots and 3-manifolds</p> <p>② Representation categories of Hopf algebras</p> <p>Key Words</p> <p>Topology, Tensor Category, Representation, Topological Field Theory, Hopf Algebra, Quantum Group, Knot, 3-Manifold, Subfactor, Triangulation</p> <p>Applications</p> <p>Natural Science</p> <p>E-mail: wakui@kansai-u.ac.jp</p>

Probability and Statistics	<p>UEMURA Toshihiro</p> <p style="text-align: right;">Professor Doctor of Science</p> <p style="text-align: right;">Department of Mathematics Faculty of Engineering Science</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">Master's Program</div> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">Ph.D.Program</div>	<p>Research Topics</p> <p>① Global path properties for Markov Processes ② Regularity problem for Dirichlet forms ③ Construction of Feller semi-groups in terms of integro-differential operators</p> <p>Key Words</p> <p>Symmetric Stable-like Processes, Jump-diffusion, Dirichlet Forms, Martingale Additive Functional, Recurrence, Transience, Regularities, Ergodicity</p> <p>Applications</p> <p>Estimates for Stationarity of Markov Chains, Determination of Option Prices in the Discrete Model Case, Foundations of Probabilistic Risk Analysis</p> <p>E-mail: t-uemura@kansai-u.ac.jp</p>
	<p>NAGAI Hideo</p> <p style="text-align: right;">Professor Doctor of Science</p> <p style="text-align: right;">Department of Mathematics Faculty of Engineering Science</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">Master's Program</div> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">Ph.D.Program</div>	<p>Research Topics</p> <p>① Large deviation control problems ② Risk-sensitive control and utility maximization ③ Optimal investment and consumption</p> <p>Key Words</p> <p>Large deviation control, Risk-sensitive control, Utility maximization, Stochastic differential equations, H-J-B equations, Robustness, Uncertainty</p> <p>Applications</p> <p>Financial engineering, Mathematical finance</p> <p>E-mail: nagaih@kansai-u.ac.jp</p>
	<p>YAMAZAKI Kazutoshi</p> <p style="text-align: right;">Associate Professor Doctor of Philosophy</p> <p style="text-align: right;">Department of Mathematics Faculty of Engineering Science</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px 0;">Master's Program</div>	<p>Research Topics</p> <p>① Levy processes ② Optimal stopping, Optimal control ③ Applications in finance and insurance</p> <p>Key Words</p> <p>Levy processes, reflected Levy processes, optimal stopping, optimal control, impulse control, stochastic differential equations, HJB equations</p> <p>Applications</p> <p>Mathematical finance, credit risk, insurance, queues, inventory management</p> <p>E-mail: kyamazak@kansai-u.ac.jp</p>

Electrical, Electronic and Information Engineering

Research field	Academic Advisors list	
Electrical Engineering	<p>OHASHI Shunsuke</p> <p>Professor</p> <p>Doctor of Engineering</p> <p>Department of Electrical and Electronic Engineering</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Motor drive</p> <p>② Linear drive system and magnetic levitation system for transportation and conveyance system</p> <p>③ Application for superconductor</p> <p>④ New generation system using clean energy</p> <p>Key Words</p> <p>Magnetic Levitation, Electrical Machine, Electric Car, Linear Motor, High Temperature Superconductor, Renewable Energy</p> <p>Applications</p> <p>Magnetically Levitated Transportation and Conveyance System, Magnetic Bearing, Electric Car, Generator without CO₂</p> <p>E-mail: ohashi@kansai-u.ac.jp</p>
	<p>HAMADA Shoji</p> <p>Professor</p> <p>Doctor of Engineering</p> <p>Department of Electrical Electronic and Information Engineering</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Safety investigation related to human exposure to electric and magnetic fields around electric power equipment</p> <p>② Lightning shielding of electric power transmission and distribution systems</p> <p>③ Control of eddy-current distribution using arrayed coils for magnetic stimulation</p> <p>Key Words</p> <p>Electric power equipment, Nondestructive inspection, Bioelectromagnetics, Numerical electromagnetic field analysis, High performance computing, Voxel modeling</p> <p>Applications</p> <p>Improvement of dielectric strength, Lightning shielding, Protection form electric shock, Electric/magnetic stimulation</p> <p>E-mail: shamada@kansai-u.ac.jp</p>
	<p>YAMAMOTO Yasushi</p> <p>Professor</p> <p>Doctor of Engineering</p> <p>Department of Electrical and Electronic Engineering</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Liquid blanket and diverter for nuclear fusion reactors</p> <p>② Electrical grids</p> <p>③ Hydrogen permeation through ceramics</p> <p>Key Words</p> <p>Liquid blanket, lead lithium, silicon carbide, plasma discharge, neutron source, particle simulation, hydrogen permeation</p> <p>Applications</p> <p>Potable neutron source, Neutron diffraction, Fusion power generation</p> <p>E-mail: yama3707@kansai-u.ac.jp</p>
	<p>YONETSU Daigo</p> <p>Associate Professor</p> <p>Doctor of Engineering</p> <p>Department of Electrical and Electronic Engineering</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p>	<p>Research Topics</p> <p>① Evaluation and optimizing technique about electromagnetic induction phenomena for IH cooker and inductive power transfer apparatus</p> <p>② Evaluation and optimizing technique about electromagnetic environment</p> <p>Key Words</p> <p>Inverse Problem, Multi-objective Optimum Design, Finite Element Method, Method of Moment, FDTD Method, Evolutionary Computation, Electromagnetic Measurement</p> <p>Applications</p> <p>IT, Electric Power Engineering, Nondestructive Test, ITS, Electric Equipment Design</p> <p>E-mail: yonetsu@kansai-u.ac.jp</p>
Materials and Devices for Electronics and Optics	<p>KITAMURA Toshiaki</p> <p>Professor</p> <p>Doctor of Engineering</p> <p>Department of Electrical and Electronic Engineering</p> <p>Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Electromagnetic Field Simulation</p> <p>② Optical Devices</p> <p>③ Near-Field Optics</p> <p>④ Microwave Devices</p> <p>Key Words</p> <p>Finite-Difference Time-Domain Method, Nonlinear Optics, Magneto-Optical Effect, Optical Scattering, Microwave Filter, Antenna</p> <p>Applications</p> <p>Optical Communication, Optical Disk, Mobile Telephone, Wireless LAN</p> <p>E-mail: kita@kansai-u.ac.jp</p>

Materials and Devices for Electronics and Optics	<p>TAJITSU Yoshiro Professor Ph. D</p> <p>Master's Program Ph.D.Program</p> <p>Department of Electrical and Electronic Engineering Faculty of Engineering Science</p>	<p>Research Topics ① Electroactive Polymer ② Sensor & Actuator</p> <p>Key Words Piezoelectricity, Photoelasticity, Dielectrics, Ferroelectricity, Polymer, Sensing, Actuating, AFM Optical Activity, Biodegradability, Electrets, Chirality</p> <p>Applications Eco-cable, Optical Film for LCD, Touch Panel Transparency Speaker, Optical Modulator, Soft Sensor Galvanic Tweezers, Ultrasonic Motor</p> <p>URL: http://www2.ipcku.kansai-u.ac.jp/~tajitsu/</p>
	<p>SAIKI Taku Associate Professor Doctor of Engineering</p> <p>Master's Program</p> <p>Department of Electrical, Electronic Engineering Faculty of Engineering Science</p>	<p>Research Topics ① Development of high-power and high-efficient solar-pumped solid-state lasers ② Development of new laser materials ③ Production of renewable energy using metallic nanoparticles based on laser ablation</p> <p>Key Words Solar Light, Ceramics, Laser, Metal Nanoparticle, Renewable Energy</p> <p>Applications Electric Power Generation, Hydrogen Production and Storing, New Material Production, Laser Energy Transmission</p> <p>E-mail: tsaiki@kansai-u.ac.jp</p>
	<p>SATO Shingo Associate Professor Doctor of Engineering</p> <p>Master's Program</p> <p>Department of Electrical Electronic and Information Engineering Faculty of Engineering Science</p>	<p>Research Topics ① Device and process simulation ② TEG development for device analysis ③ Theory and modeling on semiconductor physics</p> <p>Key Words Scaling, MOSFET, SOI structure, LSI design, TEG development, quantum effect, device simulation</p> <p>Applications Electronic devices, VLSI, electronic measurement</p> <p>E-mail: satos@kansai-u.ac.jp</p>
	<p>NAKAMURA Kazuhiro Associate Professor Doctor of Engineering</p> <p>Master's Program</p> <p>Department of Electrical and Electronic Engineering Faculty of Engineering Science</p>	<p>Research Topics ① Low-cost fabrication processes for silicon solar cells ② Deposition and characterization of ZnO thin films ③ Si/FeSi₂ heterojunction solar cells</p> <p>Key Words Solar Cell, Silicon, Low Cost, Thin-film Deposition, TiO₂, FeSi₂, Indium Tin Oxide (ITO), Anti-Reflection Coating (ARC), Semiconductor Material Characterization, Heterojunction</p> <p>Applications Solar Cells, Semiconductor Devices, Nanotechnology, Surface Science, Environmental Engineering</p> <p>E-mail: knaka@kansai-u.ac.jp</p>
Information and Communication Engineering	<p>YAMAMOTO Miki Professor Doctor of Engineering</p> <p>Master's Program Ph.D.Program</p> <p>Department of Electrical and Electronic Engineering Faculty of Engineering Science</p>	<p>Research Topics ① New Generation Networks (Future Internet) ② Content Delivery</p> <p>Key Words New Generation Internet, Content Delivery, Traffic Control, Congestion Control, Wired and Wireless Internet Design</p> <p>Applications Future Internet, Content Delivery, Traffic Control, Network Performance Evaluation</p> <p>E-mail: yama-m@kansai-u.ac.jp</p>
	<p>YOMO Hiroyuki Professor Ph. D. (Osaka University, 2002)</p> <p>Master's Program Ph.D.Program</p> <p>Department of Electrical and Electronic Engineering Faculty of Engineering Science</p>	<p>Research Topics ① Wireless network control for mobile communications network ② Advanced radio resource management with intelligent wireless access ③ Cross-layer protocol design for wireless network</p> <p>Key Words Wireless Network, Mobile Communications, Mesh Network, Cognitive Radio, Protocol Design, Radio Resource Management, Energy-Efficient Protocol Design</p> <p>Applications Wireless System Design</p> <p>E-mail: yomo@kansai-u.ac.jp</p>

Information and Communication Engineering	<p>HIRATA Kouji Associate Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p>	<p>Research Topics ① Future networking ② All-optical networking ③ Network optimization</p> <p>Key Words Information network, All-optical network, Future Internet, Green ICT</p> <p>Applications Network design, the Internet</p> <p>E-mail: hirata@kansai-u.ac.jp</p>
	<p>WADA Tomotaka Associate Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p>	<p>Research Topics ① Inter-vehicle communications for next generation Intelligent Transport Systems ② Fast localization of passive RFID tags ③ Emergency Rescue Evacuation Support System</p> <p>Key Words Wireless Communications, Mobile Communications, Intelligent Transport Systems, Road-to-Vehicle Communications, Ubiquitous Computing</p> <p>Applications Wireless Communication System, Traffic Information System, Vehicular Collision Avoidance Support System, Sensor Network, Mobile Ad-hoc Network</p> <p>E-mail: wadat01@gmail.com</p>
System Informatics	<p>HIKAWA Hiroomi Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics ① Hardware neural network ② Pattern classifier ③ Frequency synthesizer</p> <p>Key Words Neural Network, Self-organizing Map, Direct Digital Frequency Synthesizer, Hand Sign Recognition System, Image Compression, Digital Signal Processing, Field Programmable Gate Array, Digital Circuit Design</p> <p>Applications Information System, Signal Processing System, Communication System</p> <p>E-mail: hikawa@kansai-u.ac.jp</p>
	<p>MAEDA Yutaka Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics ① FPGA or analog implementations of artificial neural networks ② Applications of simultaneous perturbation optimization method ③ Robot control via visual information ④ Digital watermarking</p> <p>Key Words Simultaneous Perturbation Method, Neural Networks, FPGA, FPAA, Robot, Control</p> <p>Applications Visual Feedback Robot Control System, Simultaneous Perturbation Particle Swarm Optimization and Its Hardware Implementation, Adaptive Control Using Simultaneous Perturbation Method</p> <p>E-mail: maedayut@kansai-u.ac.jp</p>
	<p>MIYOSHI Seiji Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics ① Analysis of online learning and associative memory model ② Statistical image processing</p> <p>Key Words Statistical Mechanical Analysis of Information Processing, Statistical Learning Theory, Associative Memory Model, Replica Method, Signal Processing, Image Processing</p> <p>Applications Pattern Recognition, Signal Processing, Image Processing</p> <p>E-mail: miyoshi@kansai-u.ac.jp</p>

Media Processing	<p>KAJIKAWA Yoshinobu</p> <p>Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Audio and Electroacoustics (Analysis and Design for Micro Speakers and Microphones) ② Signal Processing for Audio and Acoustic Systems (Active Noise Control, Parametric Loudspeakers, 3D Audio, Linearization of Loudspeakers, Biometrics Authentication Using Acoustic Information)</p> <p>Key Words Signal Processing, Active Noise Control, Active Sound Control, Digital Audio, Parametric Loudspeakers, Micro Speakers, Micro Microphones, 3D Audio, Biometrics Authentication</p> <p>Applications Transportations, Factory and Plants, Smartphones, Medical Equipment, Audio and Acoustic Systems, Security</p> <p>E-mail: kaji@kansai-u.ac.jp</p>
	<p>MATSUSHIMA Kyoji</p> <p>Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Creation of 3D images by computer holography ② Capture of high-definition wave-field ③ Simulation in wave-optics</p> <p>Key Words 3D Imaging, Computer Holography, Digital Holography, Diffractive Optical Element, Wave Field, Wave Optics</p> <p>Applications 3D Imaging, Display Device, Optical Device, Optical Measurement, Optical Simulation</p> <p>E-mail: matsu@kansai-u.ac.jp</p>
	<p>MUNEYASU Mitsuji</p> <p>Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Moving image processing and its applications ② Data embedding and extraction for printed images and their applications ③ Medical image processing ④ Noise reduction for images</p> <p>Key Words Digital Image Processing, Intelligent Image Processing, Object Finding, Object Tracking, Nonlinear Image Filtering, Digital Watermarking, Image Retrieval</p> <p>Applications Surveillance System, Security System, ITS, Image Restoration, Advertisement, Augmented Reality, Automatic Diagnosis for Medical Image</p> <p>E-mail: muneyasu@kansai-u.ac.jp</p>
Intelligent Software Engineering	<p>EBARA Hiroyuki</p> <p>Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Parallel Algorithm for Combinatorial Optimization Problem ② Cloud Computing System ③ Web Application for Laboratory</p> <p>Key Words Combinatorial Optimization, Parallel Algorithm, Cloud Computing, PC Cluster, Web Application</p> <p>Applications Computer, Software, Internet, Web, Algorithm</p> <p>E-mail: ebara@kansai-u.ac.jp</p>
	<p>TOKUMARU Masataka</p> <p>Professor Doctor (Engineering) Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Human interface for an interactive evolutionary computing ② Intelligent model for Kansei robot action generation ③ Kansei analysis using fuzzy decision tree</p> <p>Key Words Kansei Information Processing, Partner Robot, Emotion Model, Human Computer Interaction, Evolutionary Computation, Data Mining</p> <p>Applications Soft Computing, Multimedia, Humanoid Robot, Color Coordinate System, Product Design Support</p> <p>E-mail: toku@kansai-u.ac.jp</p>

Intelligent Software Engineering	<p>MURANAKA Noriaki</p> <p>Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p style="border: 1px solid black; padding: 2px; display: inline-block;">Master's Program</p> <p style="border: 1px solid black; padding: 2px; display: inline-block;">Ph.D.Program</p>	<p>Research Topics</p> <p>① Intelligence, kansei and intention information processing systems ② Safty, disaster prevention and comfortable information processing systems ③ Virtual lesson (penmanship) support system</p> <p>Key Words Multiple-valued Arithmetic Circuit, Intellectual Information Communication, Society / Traffic Safety Support, Penmanship Support System, NIRS, Electroencephalogram</p> <p>Applications VLSI Design, Intelligent Transport Systems, Disaster Prevention Simulation, Education Support Equipment, Welfare / Life Support Equipments</p> <p>E-mail: muranaka@kansai-u.ac.jp</p>
	<p>KOJIRI Tomoko</p> <p>Associate Professor Doctor of Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p style="border: 1px solid black; padding: 2px; display: inline-block;">Master's Program</p>	<p>Research Topics</p> <p>① Verbalization Support System for Tacit Knowledge ② Logical Thinking Support System ③ Environment Design for Intelligent Activity</p> <p>Key Words Education/Learning Support, Intelligent Tutoring System, Skill Learning Support, Idea Creation Support, Navigation, Meta-learning Support, Visualization, Communication Interface, CSCW</p> <p>Applications Education/Learning Support System, Intelligent Activity Support System, e-Learning, Groupware, User Interface Design</p> <p>E-mail: kojiri@kansai-u.ac.jp</p>
	<p>HANADA Yoshiko</p> <p>Associate Professor Ph. D. in Engineering Department of Electrical and Electronic Engineering Faculty of Engineering Science</p> <p style="border: 1px solid black; padding: 2px; display: inline-block;">Master's Program</p>	<p>Research Topics</p> <p>① Heuristics, optimization and its applications ② Parallel processing</p> <p>Key Words Optimization, Evolutionary Computation, Genetic Algorithm, Combinatorial Problem, Multiobjective Optimization, Intelligent Processing, Learning</p> <p>Applications Design Optimization, Intelligent Processing</p> <p>E-mail: hanada@kansai-u.ac.jp</p>

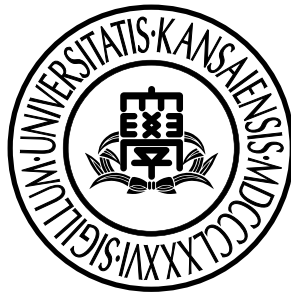
Life Science and Biotechnology

Research field	Academic Advisors list		
Life and Pharmaceutical Science	<p>OIKAWA Tadao</p> <p>Professor</p> <p>Doctor of Agriculture, Kyoto University</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Professor</p> <p>Doctor of Science</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics</p> <p>① Isolation and characterization of novel enzymes from microorganisms</p> <p>② Enzymological and microbial production of industrially useful compounds and D-amino acids</p> <p>③ Analysis and function of D-amino acids in foods</p> <p>Key Words</p> <p>D-Amino Acid, Novel Enzyme, Stereospecific Synthesis, Biocatalyst, Screening of Novel Microorganisms, Fermentative Food, Cold-active Enzymes</p> <p>Applications</p> <p>Production of Food Additive, Functional Food, Medicine, Agricultural Chemicals, and Biopolymer; Food Process; Biomass; Biosensor</p> <p>E-mail: oikawa@kansai-u.ac.jp</p>
	<p>SHIMOKE Koji</p> <p>Professor</p> <p>Doctor of Science</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Professor</p> <p>Doctor of Science</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics</p> <p>① Basic therapeutic research based on molecular and cellular biology about neurodegenerative disorders</p> <p>② Epigenetic regulation during neuronal differentiation</p> <p>③ Molecular mechanism on building neuronal networks</p> <p>Key Words</p> <p>Apoptosis, ER Stress, Alzheimer's Disease, Parkinson's Disease, PC12 Cells, Cerebral Cortical Neuron, Neurotrophic Factors, Signal Transduction</p> <p>Applications</p> <p>Development of Medicine for Neurodegenerative Diseases, Discovery of Target Molecules for Cognitive or Personality Disorder</p> <p>E-mail: shimoke@kansai-u.ac.jp</p>
	<p>NAGAOKA Yasuo</p> <p>Professor</p> <p>Ph. D.</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Professor</p> <p>Ph. D.</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics</p> <p>① Explorative study of bioactive compounds</p> <p>② Synthesis of functional molecules</p> <p>③ Pharmaceutical engineering</p> <p>Key Words</p> <p>Drug Discovery, Natural Products, Molecular Target Drugs, Gene Delivery, Polyphenol, Histone Deacetylase Inhibitor</p> <p>Applications</p> <p>Pharmaceuticals, Cosmetics, Dietary Supplements</p> <p>E-mail: ynagaoka@kansai-u.ac.jp</p>
	<p>SUMIYOSHI Takaaki</p> <p>Associate Professor</p> <p>Ph. D.</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p>	<p>Associate Professor</p> <p>Ph. D.</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics</p> <p>① Drug discovery of bioactive compounds</p> <p>② Discovery of natural products</p> <p>③ Construction of chemical library</p> <p>④ Identification of molecular mechanism of bioactive compounds</p> <p>Key Words</p> <p>Medicinal Chemistry, Protein-Protein Interaction, Macrocycles, Epigenetics, Chemical Library, Natural Products, Neurodegenerative disease, Anticancer Drug, Drug Delivery to Brain</p> <p>Applications</p> <p>Pharmaceuticals, Drug Discovery</p> <p>E-mail: t-sumiyo@kansai-u.ac.jp</p>
	<p>YASUHARA Hiroki</p> <p>Associate Professor</p> <p>Ph. D. (Science)</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p>	<p>Associate Professor</p> <p>Ph. D. (Science)</p> <p>Department of Life Science and Biotechnology</p> <p>Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics</p> <p>① Cell plate formation in higher plant cells – Mechanisms of the centrifugal development of the phragmoplast –</p> <p>② The role of microtubule associated proteins in cell division and cell elongation</p> <p>Key Words</p> <p>Plant Cytokinesis, Phragmoplast, Cell Plate, Microtubules, Actin Filaments, Cytoskeleton, XMAP215, TMBP200, Kinesin Related Proteins</p> <p>Applications</p> <p>Breeding of Plants</p> <p>E-mail: yasuhara@kansai-u.ac.jp</p>

<p>Life and Pharmaceutical Science</p>	<p>YAMANAKA Kazuya</p> <p>Master's Program</p>	<p>Associate Professor Ph. D. Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics ① Genomics-guided Discovery of Biosynthetic Genes for Novel Bioactive Molecules ② Biosynthetic Studies for Structurally Unique Microbial Bioactive Molecules ③ Development of a Genetic Platform for Efficient Production of Bioactive Molecules</p> <p>Key Words Genome-mining, Natural product, Biosynthesis, Microbial genetics, Actinobacteria, microbial production, fermentation</p> <p>Applications Pharmaceutical and Agricultural drugs, Food preservatives, Cosmetics, Biopolymers, Chemicals</p> <p>E-mail: kazuyay@kansai-u.ac.jp</p>
<p>Microbiology and Environmental Science</p>	<p>IWAKI Hiroaki</p> <p>Master's Program Ph.D.Program</p>	<p>Professor Doctor of Engineering Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics ① Analysis and development of bacterial metabolic activities for xenobiotics and its application for bioremediation of environmental pollution ② Ecological study of xenobiotics degrading bacteria in soil and marine environments</p> <p>Key Words Biodegradation, Bioconversion, Nitroaromatics, Marine Bacteria, Baeyer-Villiger monooxygenase</p> <p>Applications Bioremediation of Xenobiotics, Bioconversion of Xenobiotics-related Compounds to Useful Chemicals, Wastewater Treatment</p> <p>E-mail: iwaki@kansai-u.ac.jp</p>
	<p>KATAKURA Yoshio</p> <p>Master's Program Ph.D.Program</p>	<p>Professor Doctor of Agriculture Department of Life Science and Bioengineering Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics ① Ethanol production by consolidated continuous solid state fermentation ② Delignification of biomass by a bacterium ③ Symbiosis of lactic acid bacterium and yeast ④ Adhesion of lactic acid bacteria to carbohydrate</p> <p>Key Words Bioethanol, Solid state Fermentation, Yeast, Lactic acid Bacteria, Symbiosis, Probiotics, Engineering ethics</p> <p>Applications Entire Design of Bioethanol Production, Adhesion of Lactic Acid Bacteria to Carbohydrate</p> <p>E-mail: katakura@kansai-u.ac.jp</p>
	<p>HASEGAWA Yoshie</p> <p>Master's Program Ph.D.Program</p>	<p>Professor Doctor of Engineering Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics ① Biodegradation of environmental pollutants ② Application of Baeyer-Villiger monooxygenase to organic synthesis</p> <p>Key Words Biodegradation, Biocatalysis, Biotransformation, Environmental pollutants, Cycloparaffin, Nitroaromatic Compounds, Baeyer-Villiger Monooxygenase</p> <p>Applications Treatment of Wastewater, Green Chemistry, Genetic Improvement of Strains or Biocatalysts, Bioremediation</p> <p>E-mail: yoshie@kansai-u.ac.jp</p>

Microbiology and Environmental Science	<p>MATSUMURA Yoshinobu</p> <p>Professor Doctor of Engineering Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Bioremediation of chemical pollutants by environmental bacteria and their activities ② Bacterial biofilm formation and development of biofilm removal system ③ Outbreak mechanism of stress resistant bacterial and their resistant mechanism</p> <p>Key Words Bioremediation, Chemical Pollutant, Cytochrome P450 Monooxygenase, Molecular Chaperone, Protein Stability, Biofilm, Surfactant, Reactive Oxygen Species, Disinfectant, Sterilization System, Stress Response, Genetics, Endogenous Plasmid</p> <p>Applications Sewage Disposal System, Improvement of Polluted Soil, Development of Disinfectant, Food Processing, Pharmaceutical Manufacturing, Medicals, Enzymatic Industry</p> <p>E-mail: ymatsu@kansai-u.ac.jp</p>
	<p>YAMASAKI Shino</p> <p>Associate Professor Ph. D. in Engineering Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p>	<p>Research Topics</p> <p>① Evaluation and development of probiotics based on immune response ② Bioactivity screening from natural product extracts ③ Development of novel microbial culture systems and the evaluation tools</p> <p>Key Words Probiotics, Mucosal immunity, Natural product extract, Modeling, Three-dimensional culture</p> <p>Applications Functional Food, Adjuvant for Mucosal Immunity, Bioethanol Production</p> <p>E-mail: shino.ya@kansai-u.ac.jp</p>
Food and Nutrition Science	<p>FUKUNAGA Kenji</p> <p>Professor Doctor of Fisheries Science Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① We study on the absorption, metabolism, nutrigenomics, and chemistry of marine functional compounds such as n-3 polyunsaturated fatty acid or marine organic compounds. ② Our research project also includes attempts to improve protein functionality, food process characteristics and biofunctions, using molecular modification.</p> <p>Key Words Fish Oil, n-3 Polyunsaturated Fatty Acid, Fish Protein, Fish Peptide, Marine Products, Protamine</p> <p>Applications Functional Foods, Utilization of Marine Bio-resources, Materials of Pharmaceutical Compounds</p> <p>E-mail: fukunagk@kansai-u.ac.jp</p>
	<p>YOSHIDA Munehiro</p> <p>Professor Doctor of Philosophy in Agriculture, Doctor of Philosophy in Medical Science Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p> <p>Master's Program</p> <p>Ph.D.Program</p>	<p>Research Topics</p> <p>① Nutritional approach to minerals and trace elements in foods ② Environmental assessment of urban and rural area using community of butterflies</p> <p>Key Words Trace Elements, Nutrition, Food, Iron, Copper, Selenium, Zinc, Iodine, Chromium, Molybdenum, Dietary Reference Intake, Butterfly, Urban Environment</p> <p>Applications Nutritional Enrichment, Nutritional Supplements, Analysis of Trace Elements, Nutritional Assessment, Environmental Assessment</p> <p>E-mail: hanmyou4@kansai-u.ac.jp</p>

<p>Food and Nutrition Science</p>	<p>HOSOMI Ryota</p> <p>Master's Program</p>	<p>Assistant Professor Doctor of Engineering Department of Life Science and Biotechnology Faculty of Chemistry, Materials and Bioengineering</p>	<p>Research Topics</p> <p>① Influence of Superchilling (Hyo-On) Treatment on Food Components ② Health Promoting Effect of Novel Component Derive from Seafood</p> <p>Key Words</p> <p>Superchilling (Hyo-On), Food Preservation, Aging, Seafood, Fish Protein, Marine Phospholipid</p> <p>Applications</p> <p>Food Preservation Technology, Novel Aging Technology, Functional Food and Component</p> <p>E-mail: hryotan@kansai-u.ac.jp</p>
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Kansai University Graduate School

http://www.kansai-u.ac.jp/Gr_sch/

Senriyama Campus

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Graduate School of Business and Commerce Graduate School of Sociology
Graduate School of Science and Engineering Graduate School of Foreign Language Education and Research
Graduate School of Psychology Graduate School of East Asian Cultures Graduate School of Governance

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