Application Guidelines
for
Graduate School of Computer Science and Systems Engineering (Doctorate Course)
Special Application from Overseas

Okayama Prefectural University
for
the 2024 Academic Year

岡山県立大学
OKAYAMA PREFECTURAL UNIVERSITY

30th 鮮緑の風、県大力 ANNIVERSARY Okayama Prefectural University

Admission Policy of the Graduate School of Computer Science and Systems Engineering

The Graduate School of Computer Science and Systems Engineering holds entrance examinations for its master's and doctorate courses for students and working adults both in Japan and overseas to attract qualified individuals who satisfy all the requirements specified by its conferment policy.

Admission Policy of the Doctorate Course of Advanced Systems Engineering

The Doctorate Course in Advanced Systems Engineering cultivates engineers and researchers capable of developing comprehensive and cutting-edge knowledge and technology beyond the boundaries of existing frameworks through the development of theories and technology in their specialized fields, and identifying and finding solutions to new issues to respond to diverse requests from an innovation-oriented society in the future through digital innovation.

This Doctorate Course seeks individuals highly motivated to further their study of theory and technology in the fields of electronics, information and communication engineering, mechanical and information systems engineering, and human information systems engineering, capable of using English to gather and provide information, identifying research themes, and discovering solutions.

This Doctorate Course offers examinations for summer, winter, and fall enrollment as well as for special overseas student enrollment with the hope of attracting qualified individuals, including working adults, from both Japan and abroad.

For summer, winter and fall enrollment, this Course selects candidates through an academic proficiency examination designed to assess knowledge, thinking ability and expression skills in specialized fields, an academic proficiency examination designed to assess foreign language (English) competence, including the ability to gather and provide information using English, and an interview and document screening designed to assess achievement, motivation, independence, cooperativeness, and management skills related to research activities.

For special overseas student enrollment, the Course selects candidates through an interview (including an oral examination for foreign language [English], their specialized fields, master's thesis) and research plans to assess their specialized knowledge, logical thinking, achievements, motivation, independence, cooperativeness, management skills related to research activities, the ability to gather and provide information, and ability to express themselves in a clear and concise manner.

Application Guidelines for Graduate School of Computer Science and Systems Engineering
(Doctorate Course) Special Application from Overseas
Okayama Prefectural University for the 2024 Academic Year

1. Enrollment Capacity

A limited number of selected students.

2. Qualifications of Application

Applicants who meet all of the following criteria (1) through (6) are eligible to apply.

(1) Must be confidently recommended by the President or the Rector of International Academic Exchange Partner Universities.

(2) Hold a master's degree or plan to hold said degree by March 31, 2024.

(3) Have gained excellent grades for both bachelor's degree and master's degree.

(4) Have extensive knowledge and enthusiasm for his/her research work.

(5) Must be proficient in English or Japanese to perform the task necessary for research.

(6) It is preferred to have Japanese-Language Proficiency Test - N2 level or higher.

3. Enrollment Dates

Monday, April 1, 2024

4. Application Procedure

(1) Application

Enclose the documents listed in "Application Documents" in an envelope and send by registered international mail via the designated university which can issue the recommendation letter. Application by e-mail cannot be accepted. Documents required must be written in English or Japanese.

(2) Application Period

Summer Application From July 31, 2023 to August 4, 2023
Winter Application From December 18, 2023 to December 22, 2023

(3) Where to send

Admission Service Section
Okayama Prefectural University
111 Kuboki, Soja-City, Okayama Prefecture 719-1197

5. Application Documents

(1) Application Form

Use the form provided (Form 1) and fill out completely.

(2) Certificate of Graduation (Prospective Graduation)

Certificate must be issued and sealed by the president, the rector or the dean of the relevant

university.

(3) Transcripts

Transcripts must be issued and sealed by the president, the rector or the dean of the relevant university. Submit the transcripts listing grades of all credits obtained while at the university. (both undergraduate school and graduate school)

(4) Master's Thesis

Applicants who hold a master's degree must submit a copy of their master's thesis or the abstract thereof.

Applicants who plan to hold a master's degree by March 31, 2024 must submit a report of research progress or work content.

(5) Research Project Overview

Applicants must describe a field and theme of research that they are interested in working on. (Free format)

(6) Two Recommendation Letters by the President or the Rector as well as the master's course instructor of the designated university

Recommendation letters must be issued and sealed respectively by the relevant persons.

(7) Photo Card and Entrance Examination Admission Card

Use the form provided (Form 2 and 3) and fill out completely.

Write applicant's name on the reverse side of 4cmH x 3cmW color photo and affix it to the photo space with glue.

(8) Others

Submit a copy of certification which proves applicant's level of Japanese language.

6. Interview with the Supervisor and the Dean

Prior to submitting an application, an applicant is required to have two or more online interviews with the prospective supervisor and the dean of the Doctorate Course of your interest in English or Japanese. The interviews shall be held via web video conference such as Skype, Zoom, etc. connected between Okayama Prefectural University and the designated university before September 24, 2023 (December 11, 2023).

Appointments for these interviews must be made by e-mail (nyushi@oka-pu.ac.jp) through Admission Service Section by no later than July 10, 2023 (November 27, 2023).

Among "Application Documents", copies of (1), (4), (5), (6), (7), (8) must be submitted to Okayama Prefectural University two weeks prior to the first interview at the latest

7. Examination

(1) Examination Date August 23, 2023
January 18, 2024

(2) Selection

Selection for admission is based on a comprehensive evaluation of oral examinations and interview which are carried out in English or Japanese via web video conference as mentioned above.

(3) Allocation of Points

Subject 1　English Oral Examination
Points 100
Subject 2　Academic Proficiency Oral Examination
(associated with the preferred concentration)
Points 100
Subject 3　Interview
(based on applicant's master's thesis and Research Project Overview)
Points 100
Total Points　300

8. Announcement of Successful Applicants

(1) Announcement Date　September 1, 2023
January 26, 2024

(2) Announcement Procedure

Applicant will be informed of the result via the designated university which issued the recommendation letter.

Successful applicant will receive an official letter of acceptance as well as information about enrollment procedures via the university mentioned above.

9. Enrollment Procedures

(1) Period　Due no later than September 13, 2023
March 15, 2024

(2) Procedure

Send documents required for enrollment to Admission Service Section by registered international mail via the designated university which issued the recommendation letter.

Applicant who fail to complete the procedure by the specified date will be deemed to have declined enrollment.

10. Privileges of Successful Applicants

(1) Enrollment fee will not be charged.

(2) Tuition will not be charged up to a maximum of three years.
(This can be cancelled if the candidate does not meet the guidance of academic performance.)

11. Security Export Control

Okayama Prefectural University performs the security export control based on "Foreign Exchange and Foreign Trade Act" so that education and study contents to foreign students do not obstruct maintenance of international peace and the security.

International applicants who fall under any of the conditions set out in said regulations may be unable to enter their desired course or program.

12. Others

(1) Application fee will not be charged.

(2) Doctorate degree will be given according to relevant regulations of the Graduate School of Okayama Prefectural University and the enrollment through this special application does not always directly lead to the degree conferment.

(3) Successful applicant must acquire necessary status of resident in Japan as "college student" by enrollment date with the cooperation of Okayama Prefectural University.

(4) Even after an official letter of acceptance was issued, enrollment can be cancelled in case the contents of Application Documents should be confirmed to be false.

Invitation from the Graduate School of Computer Science and Systems Engineering(Doctorate Course), Okayama Prefectural University

Highly-advanced information society is an integration of information processing and telecommunication technology. Informatization makes it possible for a society to share and reuse knowledge and contribute it to the growth of a wide range of fields, including industry, administration, economy, and culture. Intelligence technology is applied to install intelligent ability close to humans into computers, and such technology is contributing significantly to the advancement of industry and society. In order to respond appropriately to the diverse needs of society as it grows increasingly complex along with the progress of informatization, it is necessary to vigorously promote the development of systems and their elements as well as unification and intelligence technology from a new perspective based on informatization.

Three majors offered in the Doctorate Course of Advanced Systems Engineering provide research and education based on the application of computers to a wide range of fields.

Composition of Major & Content of Research and Education

[Electronics, Information and Communication Engineering Major]

Information processing and telecommunications, and electronic device technology are the fundamentals that support the advancement of information society. The Electronics, Information and Communication Engineering provides research and education regarding the foundation and application of optical light and electromagnetic waves, telecommunication network technology, information signal encoding, semiconductor technology and the development and application of photonic and electronic devices for management science, mathematical analysis of management information, knowledge databases for massive amounts of information, high-speed and spreading bandwidth of information telecommunications, and diverse usage.

[Mechanical and Information Systems Engineering Major]

Advancement of machine and processing technology in information society is closely related tothe progress of intelligent technology and unification. The Mechanical and Information Systems Engineering provides research and education in the advancement of intelligent processing by computers and application to machine and processing control, human interface with mechanical systems, modeling and simulation of materials, movement and energy, information processingin design, and optimization and evaluation of machine and processing systems to promote intelligent technology in machine and processing systems, and the unification of design and production processes.

[Human Information Systems Engineering Major]

It is important to have a human-centered design concept, which matches human characteristics,in the design and development of machines and systems used in living environments. The HumanInformation Engineering helps students to analyze and understand human characteristics from the viewpoint of physical exercise, movement, behavior, and cognitive function, and provides research and education in engineering and technological development based on human-centered design and thought through the evaluation of compatibility between humans and machines.

Research Supervisors and Major Research Theme

Major	Title	Name	Specialty	Research Content
Electronics, Information and Communication Engineering	Prof.	IWAHASHI Naoto	Intelligent Robotics/ Machine Learning	(1) Multimodal dialogue ability learning by robots (2) Human-robot interaction (3) Object concept learning
		SAKAKIBARA Katsumi	Communication and Network Engineering	(1) Algebraic error correcting coding theory (2) Error control protocols for communication systems (3) Random access protocols for mobile/wireless communication systems
		OKUBO Kensuke	Microwave and Millimeter wave Engineering	(1) Analysis of electromagnetic waves transmitting through microwave circuits, including magnetic substances (2) Microwave and millimeter wave circuit and device using magnetic material and metamaterial (3) High-frequency integrated circuits for mobile telecommunication
		INAI Hiroshi	Communication and Network Engineering	(1) Prediction of telecommunication system performance (2) High-speed, large-scale information network design (3) Distributed computing through information networks
		ITO Nobuyuki	Analog Integrated Circuit/ Device Modeling	(1) High-frequency analog integrated circuits (2) High-frequency device modeling (3) High-frequency integrated circuits for wireless telecommunication
		SUEOKA Koji	Applied Physics and Crystal Engineering	(1) LSI semiconductor substrates utilizing molecular simulation (2) Search for new materials through first-principles calculation (3) Fundamental research on physics of semiconductor surfaces and interface
	Associate Prof.	TAKIMOTO Hironori	Perceptual Information Processing, Image Engineering	(1) Modeling of perceptual information processing (2) Advancement of human sensing (3) Development of image processing technology based on visual and perceptual characteristics
		WAKABAYASHI Hideaki	Electromagnetic Theory/ Optical and Electromagnetic Wave Engineering	(1) A fundamental study of analytical theory and computational method for electromagnetic scattering and diffraction problems (2) A study on clarification and application of light and electromagnetic waves phenomenon caused by periodic and metamaterial structures
		FUKUSHIMA Takehiro	Applied Optics/ Quantum Optical Engineering	(1) Two-dimensional microcavity lasers (2) Laser chaos and its applications (3) Semiconductor lasers and related devices

Major	Title	Name	Specialty	Research Content
Electronics, Information and Communication Engineering	Associate Prof.	NODA Yusuke	Computational Materials Science/Machine Learning/Materials Informatics	(1) Electronic states investigation for various materials using first-principles calculations (2) Development of theoretical simulations based on machine learning-based interatomic potentials for semiconductor materials (3) Exploration of new functional materials using information science and materials data
Mechanical and Information Systems Engineering	Prof.	XIN Xin	Robotics/ Control Engineering	(1) Design and analysis of underactuated robotics control systems (2) Stability analysis and control design for electric power systems (3) Analysis and control of complex systems
		OZAKI Koichi	Mechanics of Materials/ Thermal Engineering	(1) Thermal and mechanical properties of porous medium and their application (2) Analysis of casting processes utilizing numerical simulations (3) Light metal strength properties
		TSUMAYA Akira	Design Engineering/ Manufacturing Systems	(1) Methodology for upper stage of design (2) Flexible and resilient supply chain (3) Management and usage of design/ manufacturing/ operation information
	Associate Prof.	YOKOGAWA Tomoyuki	Dependable System/ Software Engineering	(1) Study of enhancement of reliability of software based on the formal methods (2) Study of hardware design automatic verification using the model inspection
		ISHII Yutaka	Human Interface	(1) Communication support via Embodied avatars (2) Human agent interactions
		FUKUTA Tadao	Materials Processing Engineering/ Computational Dynamics	(1) Strength property evaluation for heat-processed materials (2) Clarification of material strengthening mechanisms utilizing molecular simulations (3) Strength properties of cast light metals
		TOKUNAGA Yoshitaka	Electrical Engineering	(1) Estimation with analytical model of electric power equipment (2) Electrical characteristics of home appliances
Human Information Systems Engineering	Prof.	SATO Yoichiro	Computer Engineering/ Image Engineering	(1) High performance and reliability of large-scale digital systems (2) High-functional image processing accelerators (3) High performance of medical equipment (4) High-speed conversion methods for high-resolution moving images
		YAMAUCHI Hitoshi	Image Engineering	(1) Object and motion recognition from image information (2) Image data processing

Major	Title	Name	Specialty	Research Content
Human Information Systems Engineering	Prof.	SAITO Seiji	Human Engineering/ Exercise Physiology	(1) Study of shoes functionality with reference to usability (2) Study of influence of shoe bottom wearing and measuring method (3) Extracting characteristics for gait identification
		AYABE Makoto	Applied Health Science/Exercise Physiology	(1) Safe and effective physical exercise (2) Quantitative methods for the activities of daily life (3) Equipment contributing to the realization of comfortable physical movement
		HARUKI Naoto	Heat Transfer Engineering	(1) Heat energy transport technology with high efficiency & low environmental load (2) Heat storage and radiation technology for comfortable spaces
		HOKARI Masaki	Instrumentation Engineering/ Sports Engineering	(1) Sports exercise measurement and quantitative evaluation of skills (2) Home security systems
	Associate Prof.	OSHITA Kazushige	Applied Bioinstrumentation, Physiological Anthropology	(1) Association between physiological parameters and health indices (2) Biometric-based measures leading to improvement of daily life and well-being