

Application Guidelines for the 2024 Pre-screening for Doctoral Program (For Specially Recommended International Students for 2025/2026 Enrollment)

1. Deadline for Application

30th September, 2024

2. Number of students to be recommended:

Please recommend **three or more** of the most suitable applicants from your university who meet our qualifications below.

3. Qualifications of applicants:

- (1) Those who do not hold Japanese nationality.
- (2) Those who wish to enroll in NAIST-DMS Doctoral Program.
- (3) Those who have a **GPA score of at least 2.30 (out of 3.00)** in his/her most recent academic transcript.
- (4) Those who are highly proficient in English communication, especially in a scientific field.
- (5) Those who are **recommended by the president or dean** of the following universities, and who are recognized for their excellence in academics, achievement, personality and character.
- (6) In accordance with the above, candidates must meet one of the criteria below:
 - A) Those who are registered as students, faculty members or researchers at the universities on the following list. Those who meet this requirement are required to keep the status until applying for our entrance examination (Screening of International Students by Special Recommendation).
 - B) Those who have graduated from the following universities.

Kasetsart University, Thailand / Chulalongkorn University, Thailand / Universitas Gadjah Mada, Indonesia / Universitas Indonesia, Indonesia / IPB University, Indonesia
Institut Teknologi Bandung, Indonesia / Tianjin University of Technology, China
Liaoning University, China / Nanjing University, China / Ateneo de Manila University, Philippines
University of the Philippines Diliman, Philippines / Hanoi University of Science, VNU, Vietnam
Institute of Materials Science, Vietnam Academy of Science and Technology, Vietnam
University of Science and Technology of Hanoi, Vietnam / University of Malaya, Malaysia
Universiti Sains Malaysia, Malaysia / Universiti Tunku Abdul Rahman, Malaysia
Indian Institute of Science Education and Research, Thiruvananthapuram, India

- (7) Those who will receive a master's degree by the time of enrollment
- (8) Those who plan to enroll in NAIST with the scholarship conditions below:
 - A) MEXT scholarship applying through NAIST (**Age limit: 35**) → 2025 or 2026 enrollment
 - B) MEXT scholarship applying through Japanese Embassy (**Age limit: 35**)* → 2026 enrollment
*Applicants in Indonesia are required to complete their master's degree by the time of application.
 - C) Other scholarship
 - D) Private expense (Enrollment fee: 282,000JPY / Tuition fee: 535,800JPY/year)*
*Student can apply for exemption. Enrollment fee is not exempted in most of the cases while Tuition fee is at least half exempted in most of the cases.

4. Required documents:

- ✓ CV (use NAIST format)
- ✓ Academic transcripts (academic record) of Bachelor and Master program school records
- ✓ Photocopy of a certified TOEIC score or equivalent (e.g., TOEFL, IELTS, etc.) if available

- ✓ Research record
 - *Any format is acceptable *Five A4-size pages max
- ✓ Research plan
 - *Any format is acceptable *Two A4-size pages
 - *Cover the following subjects:
 - The contents of master's thesis
 - The research field/project that applicants want to work on at NAIST after the enrollment

5. How to apply:

Please send all required documents to the International Student Coordinator of DMS-NAIST (ms-kokusaijimu@ms.naist.jp) by email. Those documents should be sent as Microsoft Word or PDF files. Please make sure that the documents are submitted through a faculty member at applicants' university. **Please do not allow applicants to apply directly.**

6. Selection procedures:

Applicants can choose a program online or onsite. * The number of participants for Onsite Program is limited. The selection consists of steps below.

- (1) Document screening: Participants will be selected based on the documents submitted. Not all applicants will be successful. All applicants will receive the selection results by **the middle of October, 2024** by e-mail from the International Student Coordinator of DMS-NAIST.
- (2) Presentation: Participants who passed the document screening will give a presentation on their own research online, which will be evaluated by NAIST faculty.

[PROGRAM A] Online program

- (3) Laboratory Rotation: The applicants who passed the first document screening may join **the laboratory rotation** held by each laboratory online. They may choose three laboratories of their interest and participate in them. During this period, students can ask and learn more about the research, and have an opportunity to talk with laboratory members.

[PROGRAM B] Onsite program

- (3') Internship (Onsite): The internship program consists of a 2-days lab-stay in three laboratories, and interview test. This program will be held from **25th of November to 6th of December 2024**. NAIST will cover the travel fee. Based on performance during the lab stay and the interview test, participants' suitability for the Doctoral program will be evaluated.
- (4) Interview test: During the online laboratory rotation and the onsite internship, there will be an interview test by PIs. Students will be evaluated on their presentation, English proficiency, basic academic ability, enthusiasm, and potential as a researcher.
- (5) The result announcement: The results will be announced by **the beginning of January, 2025**.
- (6) MEXT Embassy Recommendation: Participants who pass the interview test and are not selected for a scholarship for admission in 2025 are strongly encouraged to try for the MEXT Embassy Recommendation 2025.

If they are not successful, but have evidence of having applied for the MEXT Embassy Recommendation, they will be considered for a university recommendation slot for admission in 2026.

7. Selection schedule (Tentative):

2024	September	Study Abroad Fair (Information Session) on 9/6 Application	
	October	Document screening and Result announcement	
	November	Presentation Day (online)	
		Program A	Lab Rotation online
	Program B	Onsite Internship (11/25-12/6)	
2025	January	Result announcement	
	February	For 2025 enrollment	For 2026 enrollment
		Entrance Exam (Screening of Specially Recommended International Students)	Prepare for the MEXT Embassy recommendation
	March-May		Application for MEXT scholarship (Apply via Japanese Embassy)
	July		First screening by Embassy (document, paper test, interview test)
	August		Result announcement
			Pass
		Receive a letter of acceptance from NAIST	Contact NAIST
October	Enroll in NAIST		
2026	January		Final result announcement from MEXT
	February		Entrance Exam (Screening of Specially Recommended International Students)
	October		Enroll in NAIST *

*Even if the applicant failed the MEXT embassy recommendation, NAIST may consider to assign MEXT university recommendation to the participants of pre-screening program with higher grades

- Embassy of Japan in Thailand (https://www.th.emb-japan.go.jp/itprtop_th/index.html)
Application deadline previous year: middle of May
- Embassy of Japan in Indonesia (<https://www.id.emb-japan.go.jp/sch.html>)
Application deadline previous year: middle of April
- Embassy of Japan in the Philippines (http://www.ph.emb-japan.go.jp/itpr_en/00_000193.html)
Application deadline previous year: end of May
- Embassy of Japan in Malaysia (http://www.my.emb-japan.go.jp/itpr_en/postgraduate.html)
Application deadline previous year: middle of April
- Embassy of Japan in Vietnam (https://www.vn.emb-japan.go.jp/itprtop_vi/index.html)
Application deadline previous year: early in May

All application procedures for Japanese Government (Monbukagakusho = MEXT) Scholarships are conducted through Japanese embassies, consulates in your countries, or institutions of higher education in Japan. If you require any further information regarding Japanese Government (MEXT) Scholarships, contact Japanese embassies, consulates in your countries. Application fee is not charged. Please be aware that organizations or individuals who charge application fees or deposits have no relation with the Japanese Government.

<IMPORTANT>

MEXT prioritizes applicants with high level English proficiency (i.e, CEFER B2, TOEIC 780)

Laboratory list

Please choose laboratories you are interested in and want to join at NAIST only from the list below, and write them on your CV (use NAIST format) in order of preference. For the further information about each lab, please access our homepage (<https://mswebs.naist.jp/en/laboratories/>)

2023 NAIST Division of Materials Science: Lab list

Physics	Bio-process Engineering Laboratory	Prof. Yoichiroh Hosokawa
	Keywords: Applications of ultra-shot pulsed lasers, single cell manipulation technology, micro-fluidic devices, atomic force microscopy (AFM), laser-induced crystallization, mechanism investigation of laser-induced explosions acting on biological material	
	Solid-state Information Physics Laboratory	Prof. Tomohiro Matsushita
	Keywords: Photoelectron holography & spectroscopy, Electron diffraction, Scanning tunneling microscopy, Cathode luminescence, Dopant atomic structures, 3D shaped surfaces, Semiconductor electronic states, Magnetism	
Device	Quantum photo-science Laboratory	Prof. Hiroyuki Katsuki
	Keywords: Femtosecond lasers, nonlinear spectroscopy, coherent control, exciton polariton, vibrational polariton, two dimensional materials, coherent phonon manipulation, energy transfer	
	Applied Quantum Physics Laboratory	Prof. Takayuki Yanagida
	Keywords: Radiation-induced luminescence, scintillators, phosphors, thermoluminescence, afterglow, mechanoluminescence, optical physics, quantum energy conversion, radiation measurements, radiation detectors, quantum beams, X-rays, gamma-rays, neutrons, vacuum-ultraviolet light, near-infrared light, photoelectric conversion elements, image diagnostic equipment, security equipment, individual radiation exposure dosimeters, detectors for high-energy physics, synchrotron radiation	
Device	Organic Electronics Laboratory	Prof. Masakazu Nakamura
	Keywords: Flexible electronics, organic thin-film transistors, organic solar cells, flexible thermoelectric generators, polymer, carbon nanotube, scanning probe microscopy, development of novel characterization techniques	
	Photonic Device Science Laboratory	Prof. Kiyotaka Sasagawa
	Keywords: Image sensors, photonic devices, artificial visual devices, implant devices, brain implant devices, fluorescence detection, CMOS integrated circuit design, RF electric-field imaging	
Device	Thin Film Semiconductor Devices Laboratory	Assoc.Prof. Kosuke O. Hara
	Keywords: Solar cells, field-effect transistors, silicide semiconductors, layered semiconductors, Zintl phase, physical vapor deposition, high-throughput virtual screening, density functional theory, device simulation	

Chemistry	Photonic and Reactive Molecular Science Laboratory	Prof. Tsuyoshi Kawai
	Keywords: Photochemistry, synthesis of functional molecular materials, photochromism, molecular chirality, conductive polymers, luminescent metal complexes, nanocrystals, electrochromism, sensor molecules, thermoelectric conversion materials, nanowires, ionic liquids, nanotubes, electrochemistry	
	Biomimetic and Technomimetic Molecular Science Laboratory	Prof. Gwénaél Rapenne
	Keywords: Biomimetic science, molecular machines, technomimetic molecules, molecular chemistry, organic synthesis, coordination chemistry, polyaromatics, molecular motors, molecular gears, nanovehicles, single molecule, surface deposition, artificial membrane, cerasome, membrane dynamics, membrane-active agents, biological function modulation	
Biomaterial	Functional Organic Chemistry Laboratory	Prof. Naoki Aratani
	Keywords: Functional organic materials, polycyclic aromatic hydrocarbons, carbon nanomaterials, aromaticity, supramolecular chemistry, photochemistry, organic electronics	
	Functional Supramolecular Chemistry Laboratory	Prof. Shun Hirota
	Keywords: Supramolecule, protein, metalloprotein, function control, enzymatic reaction, chemical modification, AI protein design, analytical method, organic synthesis	
Data Science	Complex Molecular Systems Laboratory	Prof. Hironari Kamikubo
	Keywords: Complex molecular systems, protein science, biophysics, structural biology, protein design engineering, X-ray solution scattering, X-ray crystal structure analysis, neutron crystal structure analysis, low temperature spectroscopy, vibrational spectroscopy, fluorescence lifetime measurements, recombinant DNA technology, artificial proteins, structural proteins, protein transportation systems, nerve axon-elongation systems, optical information conversion systems, intermolecular interaction, intramolecular interaction, dynamic ordering analysis	
	Nanomaterials and Polymer Chemistry Laboratory	Prof. Hiroharu Ajiro
	Keywords: Molecular technology, Polymer synthesis, Polymerization control, Polymer-polymer interaction, High performance polymer, Functional polymer, Biomaterial, Medical polymer material, Environmentally friendly material, Energy related material	
Data Science	Materials Informatics Laboratory	Prof. Mikiya Fujii
	Keywords: materials informatics, process informatics, high-throughput calculations, quantum chemistry, ab initio calculations, machine learning, deep learning, generative models for materials, photocatalysis, catalysis	
	Data Driven Chemistry Laboratory	Prof. Uraoka / Assoc.Prof. Miyao
	Keywords: Data-driven chemistry, materials informatics, chemoinformatics, chemometrics, process informatics, soft-sensor modeling, chemical plant monitoring, in-silico drug discovery, de-novo molecular design, quantitative structure-activity (property) relationships, in-silico functional materials design, ligand-based approaches, chemical space, machine learning, deep learning, statistical methods, Data mining.	
Data Science	Metrology Informatics Laboratory	Prof. Shigetaka Tomiya
	Keywords: Metrology Informatics, Materials Analysis, Data science, Multimodal Measurement, Automated Analysis, Transmission Electron Microscopy, 3D Atom Probe, Cathodoluminescence, Photoluminescence, Semiconductor Materials and Devices.	