Dear Partner,

We would like to invite your students to attend our

NAIST Pre-screening Internship 2019

(For Specially Recommended International Students for 2020/2021 Enrollment)

which will take place at the

Division of Materials Science, Nara Institute of Science and Technology(NAIST)

From December 3 to December 20, 2019.

This program is open to all Master students, faculty members, researchers or graduates from your university who passionately wish to enroll and continue their studies in the NAIST doctoral program.

The internship consists of a lab-stay and an interview with our faculty members. Based on participants' performance during the lab-stay and interview, we will evaluate their suitability for the NAIST doctoral program and select potential doctoral students. Participants who are eventually selected will be admitted to NAIST in October 2020 without any further examination. Some excellent participants may be selected for scholarships. Selection is based on performance during the internship program.

<For students in 1st year of a master program>

If students pass this internship program, they must then apply for MEXT Embassy recommendation scholarship in their country. If students are successful in gaining this scholarship, their enrollment will be in 2021, upon completion of their master's degree. If students are not successful, they will still have another chance to be selected as a candidate for MEXT University recommendation scholarship (apply through NAIST) in 2021. Candidates will be selected based on their scores of the internship program. If selected, their enrollment will also be in 2021.

<For students in 2nd year of a master program, lecturers, researchers, and graduates>

If participants pass this internship program, they may be selected as candidates for MEXT University recommendation scholarship. The expected enrollement will be in October 2020.

Please recommend two to four of the most suitable applicants from your university who meet our qualifications according to the guidelines. During the internship program, students will stay in at least three laboratories they are interested in. The travel expenses and the accommodation fee will be covered by NAIST. The details will be announced to participants later.

The application dead-line is August 31, 2019 and the required documents must be submitted to **ms-kokusaijimu@ms.naist.jp** by e-mail. Applicants are not allowed to apply directly.

Selection is competitive and based on participants' application documents. Not all applicants will be successful. We are looking forward to seeing your applicants in December.

Please note : Over the next three years, this NAIST Pre-screening Internship program will shift from second-year to first-year masters students. Under the new system, successful 1st year master's student interns will be admitted to NAIST in the second year following their internship, and in the time between, they will be instructed to apply for MEXT-embassy recommendation. 2nd year master's students, lecturers, researchers and graduates may apply for the program but their entrance to NAIST will be 2 years after the internship to allow for the MEXT-embassy recommendation application time.

Division of Materials Science (DMS),
Nara Institute of Science and Technology (NAIST)

Application Guidelines for the 2019 Pre-screening Internship for Doctoral Program
(For Specially Recommended International Students for 2020/2021 Enrollment)

1. Number of students to be recommended:

Please recommend two to four of the most suitable applicants from your university who meet our qualifications below. Please do not allow applicants to apply directly.

2. Qualifications of applicants:

(1) Those who do not hold Japanese nationality.

(2) Those who wish to enroll with 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.

- Universitas Gadjah Mada, Indonesia
- University of Indonesia, Indonesia
- Bogor Agricultural University, Indonesia
- Tianjin University of Technology, China
- Liaoning 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 Malaya, Malaysia
- Universiti Sains Malaysia, Malaysia
- Universiti Tunku Abdul Rahman, Malaysia
- Universiti Teknologi Malaysia, Malaysia
- Indian Institute of Science Education and Research,India
- University of Rennes, France

(7) Those who will receive a master's degree by the time of enrollment

(8) Those who plan to enroll with NAIST with the scholarship conditions below:

A) MEXT scholarship applying through NAIST (Slot: 7/Age limit: 35) → 2020 enrollment

B) MEXT scholarship applying through Japanese Embassy (Age limit: 35)* → 2021 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.

3. 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
  - ➢ If applicants have Japanese or English publications of their own, please attach offprints.
- ✓ 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

4. Deadline for application: August 31, 2019

5. How to apply:

Please send all required documents by email to the International Student Coordinator of DMS-NAIST (ms-kokusaijimu@ms.naist.jp). 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.

6. Selection procedures:

Participants will be selected based on the documents submitted. Not all applicants will be successful. All the applicants will receive the selection results by September 10, 2019 by e-mail from the International Student Coordinator of DMS-NAIST.

7. Detail of the program:

This year, the period of the program is from December 4 to 19, 2019 (Arrival: 3 December / Departure: 20 December). The program consists of a 3-day lab-stay in three laboratories, and interview test. Based on performance during the lab stay and the interview test, participants' suitability for the Doctoral program will be evaluated and potential Doctoral program students selected.

8. Financial support:

- ➢ Flight is covered (Flight will be reserved and will be paid directly to the travel agency by NAIST)
- ➢ Accommodation is covered
- ➢ The fare of the airport shuttle bus is partially covered (3,320JPY/round trip)

9. Selection schedule:

■→ MEXT scholarship applied through NAIST (Enrollment: October, 2020)

■→Indonesian government scholarship, BUDI (Enrollment: October, 2020)

■→MEXT scholarship applied via Embassy of Japan in your country (Enrollment: October, 2021)

■→Other scholarship / Privately financed student

December, 2019	■■■■Internship
January, 2020	■■■■Result announcement of the internship ■Result announcement of the scholarship selection ■Get Letter of acceptance from NAIST for the BUDI application
February, 2020	■■Screening of Specially Recommended International Students
March-June, 2020	■Application for MEXT scholarship (Apply via Japanese Embassy) Please check the website of Embassy of Japan (*) frequently. When the application starts, please contact us shortly. We will help you prepare research plan, which is most important for the application
May-July, 2020	■First examination at Embassy of Japan (document, paper test, interview test)
June, 2020	■Apply for BUDI ■■Screening of Specially Recommended International Students
August, 2020	■Contact NAIST to get a Letter of Acceptance
October, 2020	■■■Enroll with NAIST
Around February, 2021	■Result announcement
March, 2021	■Screening of Specially Recommended International Students
April, 2021	■Travel to Japan. →Take 6-months Japanese lesson/Enroll NAIST as a Research Student
October, 2021	■Enroll NAIST as a regular student

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●Embassy of Japan in Indonesia (http://www.id.emb-japan.go.jp/infcul.html)
Application deadline previous year: beginning of May
●Embassy of Japan in the Philippines (http://www.ph.emb-japan.go.jp/itpr_en/00_000193.html)
Application deadline previous year: late in May
●Embassy of Japan in Malaysia (http://www.my.emb-japan.go.jp/itpr_en/postgraduate.html)
Application deadline previous year: late in March
●Embassy of Japan in Thailand (http://www.th.emb-japan.go.jp/itpr_th/jis_study.html)
Application deadline previous year: June
●Embassy of Japan in Vietnam (http://www.vn.emb-japan.go.jp/itpr_ja/Thongbaotuyensinhhocbongchinhphunhat2019.html)
Application deadline previous year: June

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 or institutions of higher education with which you wish to enroll. 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 at least 5 laboratories you 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 (http://mswebs.naist.jp/english/courses/).

2019 NAIST Division of Materials Science: Lab list

Chemistry	**Synthetic Organic Chemistry Laboratory**	**Prof. Kiyomi Kakiuchi**
	Keywords: Synthetic organic chemistry, organic photochemistry, organometallic chemistry, catalysis chemistry, flow chemistry, polycyclic organic compounds, taxol, alkaloids, carbon skeleton conversion, asymmetric photocycloaddition, microreactors, photolabile protecting groups, caged compounds, organometallic complexes, homogeneous catalysis	
	Photonic 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	
	Photofunctional Organic Chemistry Laboratory	**Prof. Yoko Yamada**
	Keywords: Functional organic materials, organic semiconductor materials, functional pigments, organic thin-film solar cells, porphyrinoids, acenes, physical organic chemistry, organic photochemistry	
	Materials Informatics Laboratory	**Assoc.Prof. Miho Hatanaka**
	Keywords: Electronic structure calculation, quantum chemistry, Global Reaction Route Mapping strategy, analysis of reaction mechanism, database, data mining, machine learning, chiral catalyst, metal chatalyst, surface reaction, fluorescent material, luminescent probe, magnetic material	

Electronics	**Photonic Device Science Laboratory**	**Prof. Jun Ohta**
	Keywords: Image sensors, photonic devices, artificial visual devices, implant devices, brain implant devices, biomedical photonic LSIs, fluorescence detection, CMOS integrated circuits, biocompatible materials, MEMS, μTAS, optogenetics, digital ELISA	
	Information Device Science Laboratory	**Prof. Yukiharu Uraoka**
	Keywords: Thin-film transistors, displays, flexible devices, oxide materials, system-on-panels, memory, LSIs, biological materials, fine machining processes, light-emitting elements, EL elements, nanoparticles, High-K, dielectric, high-frequency communication devices, power devices, printing, solar cells, electron-beam evaporation, photolithography	
	Sensing Devices Laboratory	**Prof. Takayuki Yanagida**
	Keywords: Radiation-induced fluorescence, scintillators, v phosphor, thermoluminescence, afterglow, mechanoluminescence, optical physics, quantum energy conversion, impact ionization, radiation measurement, 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	
	Organic Electronics Laboratory	**Prof. Masakazu Nakamura**
	Keywords: Organic semiconductors, polymer semiconductors, organic thin-film growth, scanning probe microscopy, grazing-incidence X-ray diffraction, terahertz time-domain spectroscopy, quantum chemical calculation, molecular dynamics simulation, thin-film transistors, solar cells, THz-wave imaging sensors, flexible thermoelectric generators	

	Supramolecular Science Laboratory	**Prof. Shun Hirota**
	Keywords: Supramolecular science, biomolecular science, nanobiotechnology, bioinorganics, organometallic chemistry, protein science, biophysical chemistry of living things, photochemistry, chemistry related to biological functions, synthetic organic chemistry, complex chemistry, catalytic reactions, optical switching technology, function control, enzyme reactions, metalloproteins, DNA, spectroscopy, functional materials, medicinal chemistry, diseases due to abnormal protein structure, pharmaceutics	
	Biomimetic and Technomimetic Materials Science Laboratory	**Prof. Gwénaël 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	
	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: Biodegradable polymers, biocompatible polymers, biomaterials, gels, polymer structure control, inter-polymer interaction, stereocomplex, polymeric materials, nanostructure, molecular design, molecular techniques, thermoresponsivity, photoresponsivity, pH responsivity	

Physics	**Quantum Materials Science Laboratory**	**Prof. Hisao Yanagi**
	Keywords: Quantum effects, molecular crystals, nanoparticles, ultrathin films, organic electronics, photonics, organic lasers, organic solar cells, light emitting transistors, quantum dots, metamaterials, microspectroscopy, coherent control, time-resolved spectroscopy, femtosecond lasers, Raman spectroscopy	
	Surface and Materials Science Laboratory	**Assoc.Prof. Ken Hattori**
	Keywords: Solid surfaces, strongly correlated materials, surface superstructure, surface electric conduction, surface magnetism, surface light emission, surface molecular adsorption, electron stimulated desorption, (cross-sectional) scanning tunneling microscopy, electron diffraction, electronic energy bands, angle resolved photoelectron spectroscopy, Fermi surfaces, hole subbands, strained semiconductors, two-dimensional photoelectron spectroscopy, photoelectron diffraction, atomic stereo photography, photoelectron holography, XAFS, photoelectron diffraction spectroscopy, radiation, circular polarization of light, photoelectron microscopes, three-dimensional reciprocal lattice mapping, first-principle calculation, Raman spectroscopy	
	Nanostructure Magnetism Laboratory	**Assoc. Prof. Nobuyoshi Hosoito**
	Keywords: Nanostructure magnetism, surface / interface magnetism, induced magnetism of conduction electrons, interlayer exchange coupling, giant magnetoresistance effect, spin electronics, magnetic structure analysis, resonant X-ray magnetic spectroscopy / scattering, synchrotron radiation	
	Bio-process Engineering Laboratory	**Prof.Yoichiroh Hosokawa**
	Keywords: Development of single cell manipulation technology, applications of ultra-shot pulse laser, micro-fluidic chips, and Atomic Force Microscopes (AFM), mechanism investigation of laser-induced explosions acting on biological materials	

Applicant FAQ

Q. What kind of benefit will we receive from NAIST?

A.

Flight	Covered	We book your flight, and will pay the fare directly to a travel agency
Accommodation	Exempted	-
Airport bus fare	Partially covered	The fare is 4,100JPY (round trip). We pay 3,320JPY after you arrive at NAIST.

Q. Where are we going to stay during the program?

A. You are going to stay at Guest House Sentan, which locates on the NAIST campus.
http://www.naist.jp/en/campuslife/recreational_facilities/sentan.html
*If rooms are not available, you are going to stay at other accommodation outside of campus.

Q. Will NAIST provide insurance?

A. NAIST provides Overseas Travel Insurance (provider: Tokio Marine & Nichido Fire Insurance Co., Ltd.) against illness, injury, death or liability. The insurance provisions are summarized below. It does not necessarily guarantee the indemnity to the insured, which shall be made in accordance with the terms and conditions of the policy. If you need further information, or in case of claim/emergency, please contact our Planning and General Affairs Division (somu@ad.naist.jp).

1. Injury Death (Limits of indemnity: 10 million JPY)
2. Sickness Death (Limits of indemnity: 3 million JPY)
3. Injury Medical Expenses (Limits of indemnity: 3 million JPY)
4. Rescuer's Expenses (Limits of indemnity: maximum 2 million JPY)
5. Injury Permanent Disability (Limits of indemnity: maximum 10 million JPY)
6. Liability (Limits of indemnity: maximum 100 million JPY)
7. Sickness Medical Expenses (Limits of indemnity: maximum 3 million JPY)
   Exclusion: preventive care, prophylactic vaccination/immunization, pregnancy/maternity, dental care, pre-existing condition

Q. How can we apply for visa?

A. For students who need visa to visit Japan, we will send you some documents which is required for the visa application. Please visit Embassy of Japan after you received visa application documents from us by post. Japanese embassies in some countries do not allow the applicants to apply directory. In this case, you need to apply through Accredited Agencies. Please check a website of Embassy of Japan in your country well before the application.