KINS-KAIST International Nuclear and Radiation Safety Master's Degree Program

Program Announcement for 2019







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1. INTRODUCTION

A. Background

A nuclear power program entails a long-term commitment to the peaceful, safe and secure use of nuclear and radiation technology. To assure a high level of nuclear and radiation safety, a nuclear power project has to be undertaken on well-established and sustainable nuclear and radiation infrastructure. A country wishing to introduce nuclear power plants (NPPs) needs to focus on developing high quality of human resources. Underlining the importance of education and training as a key component of safety infrastructure, the General Conferences of the International Atomic Energy Agency (IAEA) continue to encourage promoting higher education program.

Assuring an acceptable level of nuclear and radiation safety which is the fundamental objectives of safety regulation is achieved through regulatory process that mainly involves safety review, inspection and decision-making. Such process requires in-depth technical knowledge and experience on all areas of science and technology related to nuclear and radiation applications, as well as on rules and regulations, stakeholder involvements, and international norms. Nuclear and radiation regulators and safety experts should be not only educated to have knowledge and skills but also trained to be capable of applying fundamentals of nuclear engineering and safety principles to their activities.

B. Objectives

The "KINS-KAIST International Nuclear and Radiation Safety Master's Degree Program" is designed to educate high-caliber overseas young professionals working in the fields of nuclear and radiation safety primarily for regulation, through which they can grow to be nuclear and radiation safety leaders. The ultimate goal of the program is to educate high-level policy makers to develop comprehensive national policies on nuclear and radiation safety as well as on their regulations, nuclear and radiation regulators to carry out their regulatory assignment more effectively, and safety experts to solve technical safety matters.

C. Organization and Faculty

The program is being organized through the cooperation of Korea Institute of Nuclear Safety (KINS) and Korea Advanced Institute of Science and Technology (KAIST). As a regulatory expert organization in Korea with the top-level capabilities and experience in nuclear safety regulation, KINS provides such curricula as nuclear and radiation safety regulations and relevant regulatory practices including on-the-job-training (OJT). KAIST, internationally well known for excellent education and the research achievements in science and technology, provides courses for basic theories on nuclear and radiation technology and academic guidance. The close location of KINS to KAIST provides the participants of this program with more convenience.

Top experts from KINS and outstanding professors at the Dept. of Nuclear and Quantum Engineering (NQE) of KAIST will offer well-rounded curricular combining the essence of both organizations in the area of nuclear safety and regulation. The general organization and conduct of the program are overseen by Program Steering Committee. International Nuclear Safety School (INSS) established within KINS manages administrative works in cooperation with NQE of KAIST.



2. SCHOLARSHIP

KINS awards full scholarships for three semesters including winter and summer session to admitted students. The coverage of a scholarship includes tuition, stipend, round trip air ticket and other costs essential for studying. The scholarship coverage is as follows:

- Application fee (USD 80),
- Tuitions for three semesters including winter and summer session,
- Stipend (1,000,000 Korean Won/month): to be paid monthly on the 10th of each month until Dec. of second year,
- An economy-class round-trip airfare between the nearest airport of the originating country and Incheon International Airport of Korea,
- Health insurance fee of approximately 50,000 Korean Won/month

♦ Notes for Scholarship

- Application fees are waived for all the applicants.
- KINS Scholarship recipients must maintain a GPA of 2.5 or above on KAIST grade scale (min. 0 to max. 4.3) in order to retain their scholarship.
- If a student decides to withdraw from the program of study after he/she was offered admission, he/she must pay KINS the full amount of the scholarship (including application fee) received up to the time of withdrawal.

3. APPLICATION

A. Eligibility Requirements

This program is open to any countries, particularly member countries of IAEA Asian Nuclear Safety Network (ANSN), having high interests in cultivating nuclear and radiation safety experts and regulators. To apply for the scholarship of International Nuclear and Radiation Safety Master's Degree Program, applicants must:

- hold a Bachelor's degree (or its equivalents),
- work for government or nuclear related institutions operated by government, and
- be recommended by his/her government or current institution being operated by the government.

B. Documents for Submission

The following documents must accompany each application. The forms can be downloaded from the INSS website (http://inss.kins.re.kr) and KAIST NQE website (https://inss.kins.re.kr).

- 1. Admission Application Form for KINS-KAIST International Nuclear and Radiation Safety Master's Degree Program (Form 1)
 - All information on this form will be used to contact the applicant; thus, full attention shall be given to the correctness.
 - E-mail address and telephone shall be kept operational. Messages will be sent via an e-mail. Sometimes, interview might be made through the phone.
- 2. Statement of Purpose (Form 2)
 - Information shall be conveyed on this form about yourself and your accomplishments, your purpose and objective in pursuing your study, and any work and/or academic experience related to nuclear safety regulation.
- 3. Statement of Financial Resources (Form 3)
 - On this form, only Section I with signature and date shall be filled in.
- 4. Two Letters of Recommendation in format made by KAIST (Forms 4-1/4-2)
 - Two recommendations are required from advisors or professors of the educational institute where the applicant attended for a BA or MS degree.
 - Letters in a private format are not accepted.
 - Letters shall be signed and sealed, and either be included in the application package or be sent directly to KAIST by the recommender.

- 5. A Letter of Recommendation in format made by KAIST (Form 5) from the applicant's current employer
 - Letters in a private format are not accepted.
 - Recommendation by the head of the applicant's organization will be highly taken into account.
- 6. Graduation, degree and/or diploma certificates from all the universities attended
 - Graduation, degree and/or diploma certificates should be <u>original or</u> certified copy with fresh stamp. Photocopies will NOT be accepted.
 - Certificate for an expected graduation by August 2019, issued by the university, will be accepted.
- 7. Transcripts of academic records from all the universities attended
 - Academic transcript should be <u>original or certified copy with fresh stamp</u>. Photocopies will NOT be accepted
- 8. Certificate of Official English Proficiency
 - Regular TOEFL (or TOEIC, TEPS, IELTS) score record more than criteria will be highly evaluated (for students only from non-English speaking countries). The test taken more than 2 years prior to application due date may not be accepted.
- 9. Curriculum Vitae
 - A personal resume in the free style is required.
- 10. Identity Document I (Copy of Passport) (for an applicant)
 - It should be checked that the passport has an enough period of the validity (more than 6 months).
 - In case of not obtaining a passport by the deadline, a copy of national ID will be usable.
- 11. Identity Document
 ☐ (for Parents)
 - Both copies of passports, or national ID cards will be accepted.
- 12. Medical Report (**Form 6**)
 - Medical Report should be an original and signed by physician(s) who examined student's health.
- 13. Optional: Any material demonstrating applicant's scholastic ability
 - Awards, honors, prizes, merits, distinction, or decoration would be highly recommended.
 - A school profile and credit rating system would be also highly recommended.

♦ Notes for Documents Preparation

- Application forms can be downloaded from the INSS Homepage (http://inss.kins.re.kr) or NQE homepage(https://nuclear.kaist.ac.kr). Applicants are recommended to frequently visit the homepages for further notices or additional guidance.
- It is strongly recommended that all required documents should be typed in instead of handwriting.
- All or part of the submitted documents shall not be returned in any case.
- Forms of 1, 2, 3, 4, 5 and 6, and Certificate of English Proficiency Test must be official and original. Faxes and photocopies of these six forms and Certificate of English Proficiency Test are not considered as the valid application documents.
- Photocopies of graduation (degree) certificates or transcripts of academic records will not be considered as the valid application documents.
- An offer of the admission might be subjected to be revoked if a candidate's submitted documents are found to be false or counterfeit.
- All documents should be written in English officially; so, if application documents including academic transcript are written in a language other than English, they should be translated into English or in Korean with the authorization of a public notary in applicant's country.
- Please input a date and signature on documents properly.
- Admitted students cannot defer enrollment to a later semester. Those who wish to defer enrollment must reapply.

C. Submission

There are two steps for an application, one is to submit a package of documents by airmail and the other is to apply through on-line. Both steps should be done by each individual applicant by the given deadline.

First, applicants should send their application packages directly to the following address, and they should arrive before the due date given below. We shall only accept application documents that arrive at KAIST by the due date and time. We do not take any responsibility for a failure in the delivery of application documents. The address required to send your application package is:

Due date for documents submission for 2018 Fall Semester: 29 March 2019

Ms. Juyeong Park

KINS-KAIST Master's Degree Program Coordinator

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If submitted documents are not complete, program coordinator will request applicant to send the insufficient documents. These additional documents also should be arrived by the deadline, so the applicants are strongly recommended to send the admission package by 2 weeks ahead of the deadline.

Second, all applicants should visit the homepage of Office of Admissions of KAIST (https://apply.kaist.ac.kr/InterGradApply/). The site for application for 2019 fall semester will be activated from March 19, 2019. Fill out an application form completely and upload your photo (bmp, jpg, png) and save the file. After saving a file, each applicant should send the corresponding information such as his/her ID and password to the KINS-KAIST MS Program coordinator (juyeong@kaist.ac.kr) for the processing the application at the above address. KINS-KAIST MS Program coordinator will process the next step of an application, that is, payment of the application fee.

Applicants cannot apply for two or more different programs in KAIST at the same admission period.

4. ADMISSION AND GRADUATION

A. Selection Criteria

Candidates are considered without respect to race, color, religion, disability or gender. Selection is performed on the basis of:

- Academic excellence,
- Outstanding performance (Honor, Prize, Decoration, etc) in scientific subjects,
- Proficiency in written and spoken English, and
- Future application and contribution to related areas

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One of the critical factors for admission is English proficiency. The minimum scores for English tests are as follow:

Academic	TOEFL	TOEFL	TOEFL	TEPS	TOEIC	IELTS
Year	IBT	PBT	СВТ			
2019 ~	83	560	220	599	720	6.5

B. Schedule for Admission and Arrival

As the International Nuclear and Radiation Safety Master's Degree Program is run under the cooperation agreement of KINS and KAIST, all the processes of academic affairs including admission, arrival, orientation and registration have to be harmonized with those of KAIST. In this regard, students' cooperation in meeting the following schedule is highly required.

Application Document Receipt: by <u>29 March 2019</u>

- Program coordinator of KINS-KAIST checks the completeness of the application document package and acknowledges the receipt.

• On-line Application: 19 March-9 April 2019

- Visit https://apply.kaist.ac.kr/InterGradApply/) for on-line application.
- Fill out on-line application form, upload photo, and save the file.
- Notify application ID to KK MS Program coordinator for further process (juyeong@kaist.ac.kr). Payment for the on-line application will be made when the document submission is fully completed.

• Screening by Joint Committee of KINS and KAIST: <u>May 2019</u>

- Joint Committee of INSS/KINS and NQE/KAIST reviews the documents, screens the applications and recommends the prospective applicants to the Admission Committee of KAIST for the final selection.

• Evaluation and advanced Notification: <u>June 2019</u>

- Applications are evaluated to select the prospective students by the Admission Committee of KAIST.
- Final result is notified to each individual applicant through on-line admission website on 21 June 2019.

• Admission Process: From July 2019

- Admission Team of KAIST starts the admission process to contact admitted applicants via e-mail or phone. During the process, the admitted students shall carefully follow the instructions given by KINS and KAIST and keep open their communication channels.
- Admitted students shall prepare a Visa in Korea Consulate in their respective countries. KAIST International Office issues the Certificate of Admission, with which students should apply for a Visa. Students are advised to acquire a **Student Visa** (**D-2 type**) to avoid any inconvenience at KAIST. It should be made sure that a visa is valid for at least **two years**. For family visa, students are asked to contact KAIST IO team (iroffice@kaist.ac.kr) to ease the visa issuance process.
- Students should book their economy class one-way air-tickets as instructed by KINS.
- Students must inform the Program Coordinators of KINS and KAIST of their arrival dates and times for the preparation of necessary arrangements.

• Arrival at KINS and KAIST: <u>From 28 August 2019</u>

- Guide to KAIST will be provided in the mid of August by KAIST International Office.
 - ◆ Students should bring three passport-size photographs in order to make a photo ID and other necessary official documents.
 - ◆ Students are advised to bring very warm clothes for the cold season, November to March, as well as some money (approximately USD 150) for the initial set-up including dormitory fee payment because the first

stipend is given in two months of entrance.

• Settlement on Campus: <u>August 2019</u>

- On-campus housing (dormitory) will be arranged for the first year in KAIST campus but the cost must be borne individually. At present, a dormitory room shared by 2 persons costs about 750,000~950,000 Korean Won/semester (6 months) for person (may change slightly). The cost must be pre-paid at the beginning of each semester by instruction of KAIST International Office.
- KAIST provides family apartment for married students near campus with a small quantity. Students can apply for this apartment by visiting KAIST Student Welfare Team (Mr. Chung, kychung@kaist.ac.kr) once the first semester starts. Private housings are also available near campus with relatively high price, but neither KINS nor KAIST will be responsible for private housings rental.
- The meals in the KINS and KAIST campus cafeteria cost around 4,000~5,000 Korean Won per meal. The costs must be born individually.
- KINS and KAIST will provide students with research room with desks, computers and printers during their stay.
- Alien registration card: Alien registration card application will be made during KAIST international student orientation at the end of August.
- Bank account: Korean bank account can be made when students acquire alien registration card in the mid of September. Students will get the bankbook within a week from application.
- Monthly Stipend: When students acquire bankbook, it is requested to send the copy of bankbook to the program coordinators of KINS and KAIST to be paid monthly stipend as soon as possible. Thus, the first monthly stipend in Korea will be provided at the end of September.
- Korean National Health Insurance: When students acquire alien registration card, KINS-KAIST Program coordinator will subscribe the Korean National Health Insurance in the mid of September. It will take about a week from application to activate insurance. Korean National Health Insurance fee will be provided by the program.
- KAIST student health insurance: It is highly recommended for students to sign up the KAIST student health insurance for further benefit from injury or accident on KAIST campus. The fee (around 45,000 won/semester) should be borne individually.

• Orientation for Student: <u>August 2019</u>

- Students are advised to arrive at KAIST, Daejeon, Korea by the last week of August, so that the program starts from the first week of September. KAIST dormitory will be available from 26 August 2019.
- At the end of August, KAIST coordinators also provide students with "KINS-KAIST Program orientation" and give information on the academic registration, courses for selection, assignment of academic advisors, requirements for graduation, etc.

• Program Start: 2 September 2019

- The first semester of the program starts on 2 September 2019.
- Students must fulfill the requirements of the program for graduation and observe regulations of KINS and KAIST. Details will be informed during KINS-KAIST program orientation.

C. Requirements for Graduation

It takes about three semesters including winter and summer session to graduate from this program and students must complete requirements of course works, on-the-job-trainings and individual research. KAIST has two options for a MS degree track: Thesis-based MS degree and Course-based MS degree track. However, the International Nuclear and Radiation Safety MS Program is designed to follow course-based MS degree track.

This program runs with 2-track system; one for the major in nuclear safety regulation (N) and the other for the major in radiation safety regulation (R). Students on nuclear safety regulation major are required to take at least one class in the area of radiation safety, while the students on radiation safety regulation are required to take at least one class in the area of nuclear safety.

For graduation, students must obtain at least 33 credit units consisting of (1) 27 credits with the GPA (Grade Point Average) score of 2.5 or higher and (2) individual research (6 units). The minimum credit plan for graduation is as follows:

Fall Semester (Sep Dec.)	 Introduction to Nuclear Safety Regulation (3) Rad. Protection and Safety Regulation (3) NQE Course (3)* KAIST Course (3) Mandatory General Course (0) 	12 Credits
Winter Session (Jan.~Feb.)	Regulation for Nuclear Fuel Cycle and Emergency Preparedness (3)Get started on Individual research	3 Credits
Spring Semester (Mar.~Jun.)	- KAIST Course (3)	
Summer Session (Jul. ~ Aug.)	r	
Fall Semester (Sep. ~ Dec.)		

Note)

⁻ NQE Course: Provided by Dept. of Nuclear and Quantum Engineering(NQE) of KAIST

^{*} Mandatory for one who had not majored in nuclear engineering

⁻ KAIST Course: Any graduate course at KAIST

⁻ Mandatory General Course: General Course at KAIST

Student of K-K International Nuclear & Radiation Safety MS Program shall complete nine (9) courses of twenty seven (27) credits before he/she starts an OJT program /Individual research study at KINS in the third fall semester. Otherwise, neither KINS nor KAIST will allow him/her to continue K-K International Nuclear & Radiation Safety MS Program and student whoever does not satisfy above requirement shall return to his/her home country.

Individual research

During the first semester of the K-K MS program students should select a project topic for his/her Individual Research. Each student is advised to consult with his/her organization about the research topic before coming to Korea.

A candidate for K-K International Nuclear & Radiation Safety MS Program shall select his/her Individual Research topic related to nuclear and radiation safety or radioactive source security. As KINS main mission is focused on only nuclear and radiation safety and radioactive source security, a candidate for K-K International Nuclear & Radiation Safety MS Program shall not select a topic in safeguard or nuclear security areas for his/her individual research.

The Individual research will be carried out with the due reflection on comments and guidance from his/her individual supervisor/advisor of KINS. Mid-term and final dissertation shall be presented for the reviews of supervisor/advisor and Research Committee. The final report of an Individual research shall satisfy the comments suggested by the Research Committee, and shall be confirmed by his/her supervisor/advisor to earn 6 credits required graduating from the KINS-KAIST MS Degree Program.

In parallel with the Individual research, students shall complete On-the-job-training (OJT) program which is given by KINS. The KINS OJT program includes special lectures on regulatory activities such as inspections, safety reviews and so on, participation in the technical conference(s), and technical visit(s) to the nuclear related facilities by the lecturer's discretion. The Special lectures start on the first week of September of the third semester, which will last for about three months with a few exams during the period. This OJT program is subject to the availability of varieties of resources of KINS and the circumstances of technical visiting sites.

Student of K-K International Nuclear & Radiation Safety MS Program are required to present his/her major Individual Research results at the Korea Nuclear Society (KNS)

fall conference. He/she should consult the subject of the manuscript for the Korea Nuclear Society (KNS) fall conference with KINS supervisor during, at the latest, the second week of August, to meet the submission deadline.

Students of K-K international Nuclear & Radiation Safety MS Program are awarded full scholarships for three semesters including winter and summer session, which include stipend to be paid monthly during stay in Korea. KINS will provide stipend to you only until December of the second year. A room shared by two persons will be provided by KINS for the individual research period at free of charge.

If a student wants to follow thesis-based MS degree, he/she must consult with his/her academic advising professor of KAIST to change his/her scholarship support. Such change is usually initiated by his/her academic advising professor of KAIST based on the student's exceptional performance.

Upon successful completion of all requirements for graduation, students shall be awarded with a Certificate of Completion of Nuclear and Radiation Safety Regulation Master's Program from KINS, as well as a Degree of Master of Science from KAIST, respectively. The degree from KAIST is accredited by the Korean Government.

Contacts for Further Information

For questions about the KINS-KAIST International Nuclear & Radiation Safety MS program, please contact:

◆ **Program Coordinator of KAIST** Ms. Juyeong Park

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You are strongly asked to cross refer to the below member when you send email to contact point.

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- For KINS and INSS, visit http://www.kins.re.kr and http://www.kins.re.kr and http://inss.kins.re.kr, respectively.
- For KAIST and NQE, visit https://www.kaist.ac.kr/ and https://nuclear.kaist.ac.kr/, respectively.