令和8年10月26日

北海道大学大学院工学研究院応用量子科学部門
助教の公募について

北海道大学大学院工学研究院では、下記のとおり教員を公募することといたしましたので、お知らせします。

1. 募集人員　助教　１名（任期付）
2. 所　　属　【雇入れ直後】応用量子科学部門 量子生命工学分野
量子ビーム応用医工学研究室
【変更の範囲】大学の定める場所
3. 専門分野　放射線医学物理学および放射線治療工学に関する研究分野（特に陽子線や重イオン線治療に関する研究、例えば治療計画・線量計算・最適化計算、照射機器・照射技術、画像工学・リアルタイム画像誘導、放射線計測学、放射線生物学など）
4. 職務内容　【雇入れ直後】大学院工学研究院、大学院工学院及び工学部(全学教育を含む。)に係る教育研究に従事するとともに、全学及び研究院等における各種委員会委員等の管理運営業務に従事する。また、当分野では量子ビームを用いた最先端の医療応用の研究を医学研究院、北海道大学病院陽子線治療センターと連携して実施しており、赴任後は陽子線治療センターとの研究連携、大学院医理工学院との教育連携を担っていただく予定である。
【変更の範囲】大学の定める業務
5. 担当科目　大学院では、日本語コースおよび英語特別コースにおける放射線治療工学、放射線物理学に関する講義を担当。学部では、機械知能工学科に関わる講義、演習、実験等を担当。
6. 応募資格　(1) 博士の学位またはPhDを有する方
(2) 学生教育（講義・ゼミ・研究指導）に関して、他の教員と協調して積極的に取り組む意欲のある方
(3) 放射線治療の知識は必ずしも問わないが、放射線治療に関する新たな研究領域に挑戦する意欲のある方
(4) 専門分野に関する英語コミュニケーション能力を有する方
(5) 日本語を母国語としない場合は、教育・研究・管理運営業務を遂行するために十分な日本語能力を有する方
(6) 医学物理士の資格を有しているか、あるいは、取得に向けて専門知識を身につける意欲のある方
7. 採用予定　令和９年５月１日以降のできるだけ早い時期
8. 試用期間　３ヶ月
9. 任期　５年（ただし，業績審査により，任期の定めのない助教となることがある）
10. 勤務時間等　月～金曜日
同意に基づく専門業務型裁量労働制（8：30～17：00 を基本、1 日に 7 時間 45

分労働したものとみなす）または固定労働時間制
休憩時間 45 分

11. 給　　与　国立大学法人北海道大学年俸制教員給与規程による

12. 健康保険等　厚生年金・文部科学省共済組合・雇用保険・労災保険

13. 受動喫煙防止措置の状況
特定屋外喫煙場所を除き、敷地内禁煙

14. 募集者の名称　国立大学法人北海道大学

15. 提出書類　以下の(1)～(3)については所定の書式を使用してください。「20. 参考情報」に記載のURLからダウンロードできます。

(1) 履歴書
写真貼付、生年月日、国籍（日本の場合、記入不要）、現住所、連絡先と電話番号、電子メールアドレス、学歴（大学卒業以降）、学位、資格、職歴等

(2) 研究業績目録：
A 論文等に係る業績：学術誌に発表した査読付論文（Impact Factor(IF) 、Total Citations(TC)を付記)、著書、国際会議プロシーディングス、解説・総説、作品、招待講演、その他（特許・発明・考案等）に分類し、全著者名を掲載順に記載
B 競争的外部資金獲得の実績：科学研究費補助金（代表と分担に分ける)、共同研究・受託研究（代表のみ)、公募研究資金（代表のみ）に分類して記載
C 所属学協会およびその活動、社会貢献実績（産学連携を含む)、受賞等

(3) 教育実績（該当する項目について記載して下さい)：
A 教育指導に係る実績：学部教育と大学院教育（担当授業科目名を明示)、ならびに学外非常勤講師等、その他（大学以外での実績も含む）に分類して記載
B 教育改善に係る実績：教科書の執筆・翻訳、教育改善に関する著書・論文、教育関連の補助金取得・受賞等に分類して記載
C その他：教育関係委員会等の実績と活動内容や特記すべき事項

(4) 主要論文３件の写し各１部

(5) 現在までの研究内容と成果の概要・採用された場合の研究計画（図表を含め A4 用紙 3～4 枚）

(6) 採用された場合の教育に対する抱負（2,000 字程度）

(7) 本人について参考意見を伺える方２名の氏名・所属・連絡先（電話、E-mail を含む）

(8) 日本語を母国語としない応募者は、日本語能力を証明する書類（日本語能力試験（JLPT）認定書等）

16. 提出期限　令和９年１月１２日（火）必着

17. 提出方法　15.に記載の書類(PDF ファイル)を JREC-IN Portal
（https://jrecin.jst.go.jp/seek/SeekTop) の WEB 応募にて送信してください。
※応募書類は教員選考の目的以外には使用いたしません。

18. その他　選考に際して面接を実施する場合があります。その際、交通費等は支給できませんので、ご了承下さい。面接をオンラインで実施する可能性もあります。あわせてご了承下さい。

19.問合せ先　〒060-8628 札幌市北区北 13 条西 8 丁目
北海道大学大学院工学研究院応用量子科学部門

部門長　松浦　妙子
TEL: 011-706-6672 (直通)
E-mail:taeko.matsuura@eng.hokudai.ac.jp

20. 参考情報

北海道大学大学院工学研究院ホームページ https://www.eng.hokudai.ac.jp/graduate/

提出書類のダウンロード https://www.eng.hokudai.ac.jp/graduate/research/recruit/

Job Opening - Assistant Professor in Division of Applied Quantum Science and Engineering

The Faculty of Engineering, Hokkaido University invites applications for the academic position of Assistant Professor described as follows:

1. Position Title

   Assistant Professor

2. Laboratory and Division

   (Immediately after employment)
   Laboratory of Quantum Beam Science and Medical Engineering, Research Group of Quantum Engineering for Life Science and Medicine, Division of Applied Quantum Science and Engineering
   (Scope of change)
   Location as determined by the University

3. Research Area

   Field of Radiation Medical Physics and Radiation Therapy Engineering
   (Specifically, research related to proton beam and heavy-ion beam therapy, e.g., treatment planning, dose calculation, optimization computation, irradiation equipment/techniques, image engineering, real-time image guidance, radiation dosimetry/measurement, radiation biology, etc.)

4. Responsibilities

   (Immediately after employment)
   Engage in education and research activities related to the Faculty of Engineering, the Graduate School of Engineering, and the School of Engineering (including general education courses), and participate in administrative and management duties, including service on departmental, faculty, graduate school, and university committees. In this laboratory, advanced medical application research utilizing quantum beams are conducted in collaboration with the Faculty of Medicine and the Proton Beam Therapy Center at Hokkaido University Hospital. After taking up the position, the successful candidate is expected to play a key role in research collaboration with the Proton Beam Therapy Center and educational collaboration with the Graduate School of Biomedical Science and Engineering.
   (Scope of change)
   Duties as determined by the University

5. Scope of Work

   Graduate Level: Lectures related to Radiation Therapy Engineering and Radiation Physics in both Japanese and English programs.
   Undergraduate Level: Lectures, exercises, and laboratory experiments related to the Department of Mechanical and Intelligent System Engineering.

6. Minimum Qualifications

   (1) Possess a Ph.D. or equivalent doctoral degree.
   (2) Willing and eager to work collaboratively with other faculty members in student education (lectures, seminars, and research supervision).
   (3) While prior knowledge of radiation therapy is not strictly required, applicants must have a strong drive to take on new research domains in radiation therapy.
   (4) Possess English communication skills relevant to the specialized field.

(5) Applicants whose native language is not Japanese must have sufficient Japanese language proficiency to perform educational, research, and administrative/management duties.

(6) Hold a Medical Physicist certification, or possess a strong motivation to acquire specialized knowledge toward earning this certification.

7. Date of Appointment

1 May 2027, or as soon as possible after this date

8. Probationary Period

Three months

9. Term

The term of contract is 5 years (A performance evaluation will be conducted and a successful employee can be tenured)

10. Working Hours, etc.

- Monday to Friday
- Discretionary Labor System for Professional Work based on consent (standard 8:30-17:00, Deemed to have worked 7 hours and 45 minutes in a day.) or Fixed Working Hour System.
- Break time 45 minutes

11. Salary

According to National University Corporation Hokkaido University Salary Regulations for Faculty Subject to Annual Salary System

12. Health Insurance, etc.

- Employee Pension Insurance
- Mutual Association of the Ministry of Education, Culture, Sports, Science and Technology
- Employment Insurance
- Workers' Accident Compensation Insurance

13. Measures to Prevent Second-Hand Smoke

Smoking in designated areas only

14. Name of Recruiting Institution

Hokkaido University

15. Requested Documents

Applicants should submit the following items on PDF files via JREC-IN Portal web.
Please download designated format for (1), (2), and (3) from the following site:
https://www.eng.hokudai.ac.jp/english/recruit/

(1) Detailed Curriculum Vitae

Including picture, date of birth, nationality if other than Japanese, current address, contact information (postal address, phone number and e-mail address), educational history after university, degrees acquired, qualifications, employment history.

(2) Research Achievements

A) Research achievements classified into the following categories: peer-reviewed journal articles (including Impact Factor (IF) and Total Citations (TC)), books, international conference proceedings, review articles, technical reports, creative works, invited lectures, and other achievements (including patents, inventions, and innovations). Full names of all authors should

be listed in publication order.

B) Record of competitive external funding: Grants-in-Aid for Scientific Research (classified as Principal Investigator or Co-Investigator), collaborative and commissioned research projects (Principal Investigator only), and publicly solicited research funds (Principal Investigator only).

C) Membership and scholarly activities in professional associations, public contributions (including research collaboration with industry), awards and honors, etc.

(3) Educational Achievements

A) Supervision (noting courses supervised and separated into the following categories: undergraduate and graduate levels, adjunct positions, and positions outside the university

B) Improvement of Education: textbook authorship/translations, books/papers on improvement of education, grants/awards received concerning education

C) Miscellaneous: history of participation and activity in educational committees with notable events mentioned

(4) Copies of three major publications (one copy each)

(5) Summary of recent research and research plan (3-4 pages of A4-sized paper sheets including figures and tables)

(6) Statement of educational aspirations and philosophy if appointed (approximately 1000 words)

(7) Contact information of two references (name, institution, phone number, e-mail address)

(8) Applicants whose native language is not Japanese should submit documentation demonstrating Japanese language proficiency (e.g., JLPT certificate or equivalent documentation).

16. Deadline for Application

January 12, 2027 (Tuesday) (Must arrive no later than this date)

17. Applicant Instructions

Applications should be sent via upload link of JREC-IN Portal (https://jrecin.jst.go.jp/seek/SeekTop). The submitted document will not be returned to the applicant. Applications will not be used for purposes other than this job posting.

18. Others

(1) Please note that an interview may be conducted for shortlisted candidates. The candidate is responsible for any travel expenditure for the interview. Should travel to Sapporo city be unrealistic for the candidate, the interview may be conducted online via computer software.

(2) Hokkaido University actively promotes education and research activities while relying on diverse human resources and gender equality. Therefore, Hokkaido University explicitly invites non-Japanese applicants and female applicants qualified in Applied Quantum Science and Engineering. Hokkaido University is also committed to support a work-life balance for employees, and to create an environment in which employees can demonstrate their abilities and achieve their full potential.

19. Contact Addresses

Prof. Taeko Matsuura, Division Head
Division of Applied Quantum Science, Hokkaido University
Kita 13, Nishi 8, Kita-ku, Sapporo, Japan 060-8628
Phone: +81-11-706-6672 (Direct), E-mail: taeko.matsuura@eng.hokudai.ac.jp

20. Further Information

Further information on Faculty of Engineering can be found at the following URL:
https://www.eng.hokudai.ac.jp/english/

Curriculum Vitae Format download: https://www.eng.hokudai.ac.jp/english/recruit/