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Job Title Department Institution	Research Associate/Research Fellow (Ultrafast Fiber Lasers and Academic) School of Electrical and Electronic Engineering Nanyang Technological University Singapore, , Singapore
Date Posted	May 5, 2025
Application Deadline Position Start Date	Open untill filled Available Immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Optics & Optical Engineering Electrical and/or Electronics
Apply Online Here	https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU- Main-Campus-Singapore/Research-Associate- Research-FellowUltrafast-Fiber-Lasers-and- AcademicR00020610

#### **Apply By Email**

**Job Description** 

School of Electrical and Electronic Engineering is one of the founding Schools of the Nanyang Technological University. Built on a culture of excellence, the School is renowned for its high academic standards and research. With over 3,000 undergraduates students and 1,000 graduate students it is one of the largest EEE schools in the world and ranks 4th in the field of Electrical & Electronic Engineering in the 2025 QS World University Rankings by Subjects.

The School of Electrical and Electronic Engineering (EEE) at NTU offers an exceptional research environment for the proposed project. The research will be conducted at the COEB Center (Center for



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OptoElectronics and Biophotonics) and the Fiber Technology Center. The COEB Center focuses on advanced research in the development of ultrafast fiber lasers and their practical applications. Where the Fiber Technology Center is part of the Photonics Research Institute. This center boasts cutting-edge facilities for various aspects of fiber design and fabrication, including MOCVD, a fiber drawing tower, and a range of fiber characterization equipment.

For more details, please view: <u>https://www.ntu.edu.sg/eee</u>.

We are hiring a Research Associate/Research Fellow in the area of Nonlinear Optics to conduct both theoretical and experimental studies on the nonlinear dynamics of ultrafast fiber lasers, with a focus on understanding the complex behaviors of ultrafast laser systems and exploring their practical applications. The Research Associate/Research Fellow is also expected to support teaching activities as required by the school.

#### Key Responsibilities:

- Conduct theoretical and experimental research on the nonlinear dynamics of ultrafast fiber lasers.
- Design and implement fiber laser cavities for the generation of ultrashort pulses.
- Develop and validate simulation models (e.g., using MATLAB) to analyze complex nonlinear optical phenomena.
- Collaborate with interdisciplinary teams to explore practical applications of ultrafast laser systems.
- Prepare high-quality research publications and present findings at conferences and seminars.
- Assist in the supervision of graduate students and contribute to a collaborative research environment

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Support the preparation of research proposals and reports for funding agencies.

Assist the school in various teaching activities, including instructing or supervision of labs and tutorials.

#### Job Requirements:

MSc or MEng degree (Research Associate) or PhD (Research Fellow) in Electrical Engineering, Physics, Optical Engineering or other related fields.

Solid Mathematical skills.

Experience in developing simulation model in MATLAB for analyzing nonlinear dynamics of the ultrafast fiber lasers.

Hands-on experience in designing and building fiber laser cavities for the generation of ultrashort pulses

A strong publication record is highly desirable.

- The ability to conduct independent research is highly desirable.
- Good written and oral communication skills.

We regret to inform that only shortlisted candidates will be notified



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#### **Contact Information**

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

Singapore