

Direct Link: https://www.AcademicKeys.com/r?job=249888
Downloaded On: Apr. 3, 2025 7:00am
Posted Dec. 4, 2024, set to expire May 6, 2025

Job Title Research Fellow (Thin Film Growth and

Characterization)

Department School of Electrical and Electronic Engineering

Institution Nanyang Technological University

Singapore, , Singapore

Date Posted Dec. 4, 2024

Application Deadline Open untill filled

Position Start Date Available Immediately

Job Categories Research Scientist/Associate

Academic Field(s) Electrical and/or Electronics

Job Website https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-

Main-Campus-Singapore/Research-Fellow--Thin-Film-

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Job Description



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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 10th in the field of Electrical & Electronic Engineering in the 2024 QS World University Rankings by Subjects.

Today, the School has become one of the world's largest engineering schools that nurtures competent engineers and researchers. Each year, the School graduates over a thousand students who are ready to take on great ambitions and challenges.

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

LUMINOUS! Centre of Excellence for Semiconductor Lighting and Displays at NTU Singapore's School of Electrical and Electronic Engineering (EEE) is a leading research hub advancing semiconductor lighting and display technologies. The center focuses on high-efficiency LED lighting, flexible displays, and advanced optoelectronic devices, while pioneering materials science and nanotechnology. Equipped with state-of-the-art facilities, it collaborates with industry, academia, and government to translate research into practical innovations, emphasizing energy-efficient lighting and materials. LUMINOUS! excels in fabricating devices using high-quality semiconductor nanocrystals, including II-VI, III-V, and perovskites, driving progress in the field.

This Research Fellow position is dedicated to advancing innovative research in the development of extreme ultraviolet (EUV) light sources, with a primary focus on the growth, characterization, and optimization of advanced multilayer thin films. The Research Fellow will oversee all cleanroom activities associated with the project and ensure the successful delivery of project objectives. This role directly supports NTU's mission to drive technological innovation and uphold academic excellence.

Key Responsibilities:

- Lead research on the growth and characterization of advanced multilayer thin films using techniques like sputtering, e-beam, CVD, and ALD.
- Fabricate various nanostructures and conduct field emission experiments.



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Perform comprehensive characterizations using SEM, EDS, TEM, AFM, XPS, and other advanced tools.

- Analyze experimental results and publish findings in top-tier scientific journals.
- Manage project deliverables, timelines, and reports.
- Mentor PhD students and junior researchers, supporting their development in research methodologies and project execution.

Job Requirements:

- PhD in Electrical and Electronic Engineering, Physics, Materials Science or a closely related field.
- Extensive cleanroom experience is essential.
- Strong expertise in thin-film growth, semiconductor fabrication, and advanced thin-film characterization, with proficiency in techniques such as SEM, EDS, TEM, AFM, XPS, surface profiling, etc.
- Strong understanding of high vacuum systems and high-voltage operations and cavity development.
- A robust publication record in high-impact journals is highly desirable.
- Excellent written and verbal communication skills.



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We regret to inform that only shortlisted candidates will be notified.

Contact Information

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

Contact

Singapore