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Downloaded On: Sep. 18, 2025 3:55pm
Posted Sep. 18, 2025, set to expire May 6, 2026

Job Title Research Fellow (Engineering/ Physical sciences)

**Department** School of Physical and Mathematical Sciences

**Institution** Nanyang Technological University

Singapore, , Singapore

Date Posted Sep. 18, 2025

Application Deadline Open untill filled

Position Start Date Available Immediately

Job Categories Research Scientist/Associate

Academic Field(s) Sciences - General

Job Website <a href="https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-">https://ntu.wd3.myworkdayjobs.com/Careers/job/NTU-</a>

Main-Campus-Singapore/Research-Fellow--Engineering--Physical-sciences-\_R00021945-1

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Apply By Email

**Job Description** 

Join Our Team at the School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore

The School of Physical and Mathematical Sciences (SPMS) at NTU Singapore hosts research and education activities in two divisions: Division of Mathematical Sciences (MAS) and Division of Physics



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and Applied Physics (PAP). MAS covers diverse topics ranging from pure mathematics to the applications of mathematics in cryptography, computing, business, and finance. PAP covers many areas of fundamental and applied physics, including quantum information, condensed matter physics, biophysics, and photonics. Over the years, SPMS has attracted talented individuals from around the world and Singapore to join as scientific leaders and researchers.

Join the laboratory of Prof Lew Wen Siang at SPMS. We are seeking a Research Fellow to contribute to a project focused on the Development of Advanced ReRAM Technology for Motion Analytics, Edge Intelligence and Smart Sensings.

### **Key Responsibilities:**

- To design and develop high performance ReRAM devices.
- To carry out physical vapour deposition (PVD) of ReRAM structures 300 mm wafer using ULVAC Entron system.
- To coordinate with circuit designer and semiconductor foundry on the development of CMOS frontend wafer, and back-end-of -line integration process.
- To carry out ReRAM electrical transport measurement using probe station, or on bonded memory chip, and able to conduct ReRAM test measurement, e.g. endurance, retention.
- To carry out ReRAM device fabrication using advanced lithography techniques, e.g. optical, and/or electron beam.
- To carry out device process using ICP RIE, and/or ion milling techniques.
- To analyse structural, electrical and optical characterisation results, e.g. scanning electron



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microscopy, X-ray diffraction, transmission electron microscopy, etc.

#### Job Requirements:

- A PhD degree in relevant engineering or physical sciences.
- At least 4 years working experience in similar role / technical discipline after graduated with a PhD degree.
- Good experience in handling semiconductor wafer development
- Skillful in semiconductor processing techniques.
- Possesses good skill in programming languages, some background in device modelling is a plus.
- Competent in soft skills / general personality traits e.g. information visualization, interaction design.
- Ability to work independently / develop solutions under strict timelines, meticulous and eye for details / excellent organizational / time management skills.
- Good communication and interpersonal skills for project reporting and presentation.

The College of Science seeks a diverse and inclusive workforce and is committed to equality of opportunity. We welcome applications from all and recruit on the basis of merit, regardless of age, race, gender, religion, marital status and family responsibilities, or disability.



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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