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Job Title	Research Fellow (Mechanical Engineering/Material Science & Engineering)
Department	School of Mechanical & Aerospace Engineering (MAE)
Institution	Nanyang Technological University
	Singapore, , Singapore
Date Posted	Apr. 12, 2024
Application Deadline	Open until filled
Position Start Date	Available Immediately
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Job Categories	Professional Staff
Academic Field(s)	Mechanical Engineering
Job Website	https://ntu.wd3.myworkdayjobs.com/en-
	US/Careers/details/Research-FellowMechanical-
	Engineering-Material-ScienceEngineering-
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Job Description

The School of Mechanical & Aerospace Engineering (MAE) invites applications for the position of Research Fellow. The Research Fellow will conduct both experimental and numerical research to



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develop more efficient lithium-ion batteries (LIBs) with enhanced thermoresponse capability

Key Responsibilities:

- Development of new LIB fabrication, electrochemical characterization and thermal characterization facilities,
- Development of new composite phase change materials (PCM) with enhanced thermoregulation capabilities for LIB and associated fabrication facilities,
- Carry out LIB and composite PCM fabrication and perform electrochemical and thermal characterization of new libs,
- Develop numerical models and/or analytical formulations to predict electro-thermo process in conventional and new libs,
- Work closely with other graduate students and researchers on experimental and numerical investigations,
- Assisting the preparation of the necessary research reports and technical papers, and
- Work closely with researchers, graduate and undergraduate students performing research such as URECA or final year projects.
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Assist the Principal Investigator (PI) and his co-investigators in the supervision of graduate and undergraduate students in the research team

Perform all related assignments and studies as directed by the PI from time to time



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Job Requirements:

- PhD degree in Mechanical Engineering, Material Science and Engineering, or related field,
- Experience in carrying out lithium-ion battery (LIB) fabrication and LIB electrochemical and thermal characterization,
- Experience in developing LIB fabrication and electrochemical characterization facilities,
- Experience in heat transfer experiments and measurements related to composite phase change materials,

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Relevant knowledge in material development related to LIB components including separators, electrodes and electrolytes,

- Expertise in numerical simulation and analytical formulations of electro-thermo processes in LIBs,
- Proficiency in written and spoken English

We regret 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.



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#### Contact

Singapore