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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	Feb. 8, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Professional Staff
Academic Field(s)	Mechanical Engineering
	Material/Metallurgy
Job Website	https://ntu.wd3.myworkdayjobs.com/en-
	US/Careers/details/Research-FellowMechanical-
	Engineering-Material-ScienceEngineering-
	<u>_R00016131</u>
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Job Description



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Research Fellow.

The Research Fellow will conduct both experimental and numerical research to develop more efficient lithium-ion batteries (LIBs) with enhanced thermoresponse capability.

Key Responsibilities:

Development of new LIB fabrication, electrochemical characterization and thermal characterization facilities

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Development of new composite phase change materials (PCM) with enhanced thermoregulation capabilities for LIB and associated fabrication facilities

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Carry out LIB and composite PCM fabrication and perform electrochemical and thermal characterization of new libs

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Develop numerical models and/or analytical formulations to predict electro-thermo process in conventional and new libs

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Work closely with other graduate students and researchers on experimental and numerical investigations

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Assisting the preparation of the necessary research reports and technical papers

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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, and 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 and expertise in composite phase change materials, lithium-ion battery fabrication and characterization, design and experimentation of lithium-ion battery thermal management.
- 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
- 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.



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Contact Information

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

Contact

Singapore