

Research Fellow (Mechanical Engineering/Material Science & Engineering) Nanyang Technological University

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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

Job Categories Professional Staff

Academic Field(s) Mechanical Engineering

Job Website https://ntu.wd3.myworkdayjobs.com/en-

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Engineering-Material-Science---Engineering-

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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.
- 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,
- 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