

Research Associate (Material Engineering/ Mechanical Engineering)
Nanyang Technological University

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Posted Nov. 21, 2025, set to expire May 6, 2026

Job Title	Research Associate (Material Engineering/ Mechanical Engineering)
Department	Energy Research Institute
Institution	Nanyang Technological University Singapore, , Singapore
Date Posted	Nov. 21, 2025
Application Deadline	Open untill filled
Position Start Date	Available Immediately
Job Categories	Research Scientist/Associate
Academic Field(s)	Material/Metallurgy Mechanical Engineering
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Job Description	

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Established in 2010, the Energy Research Institute @ NTU (ERI@N) is a pan-university research institute that focuses on systems-level research for tropical megacities. It performs translational research that covers the energy value chain from generation to innovative end-use solutions, motivated by industrialisation and deployment. ERI@N has multiple Interdisciplinary Research Programmes which focus on translational Research, Development & Deployment which focus on specific area of the energy value chain, and a number of Living labs and Testbeds which facilitate large scale technology deployment enabling validation and demonstration of real-world applications.

For more details, please view <https://www.ntu.edu.sg/erian>

We are looking for Research Associate to participate in and conduct research work on metal extraction from spent lithium-ion batteries. The role will focus on the characterization of metal components in spent batteries, extraction processing design, and failure mode and effects analysis.

Key Responsibilities:

- Participate in research work on metal extraction from spent lithium-ion batteries
- Participate in characterization analysis and testing
- Conduct failure mode and effects analysis (FMEA) for design work
- Conduct hands-on work related to lab set-up and readiness.
- Have skills in simulation of material performance using software tools like ANSYS.
- Prepare 2D and 3D drawings for visualizing the research work
- Conduct literature review on state-of-art technologies and standards.

Job Requirements:

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- Master's degree in material engineering, mechanical engineering, or related field
- Relevant technical hands-on experience in FMEA
- Proficient in interpreting and creating CAD drawings, with working knowledge of simulation tools (e.g., ANSYS)
- Experience in material forming and mold design
- Ability to work independently and develop effective solutions within tight deadlines
- Highly meticulous, detail-oriented, and organized with excellent time management skills
- Self-motivated and takes initiative.
- Good written and oral communication skills

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

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