

Research Fellow (Power Grid Optimisation & GUI Development) - EFX2 Singapore Institute of Technology

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Posted Jul. 11, 2025, set to expire Jul. 5, 2026

Job Title Research Fellow (Power Grid Optimisation & GUI

Development) - EFX2

Department Engineering

Institution Singapore Institute of Technology

Singapore, , Singapore

Date Posted Jul. 11, 2025

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Research Scientist/Associate

Academic Field(s) Energy Technology

Job Website https://careers.singaporetech.edu.sg/cw/en/job/498964/research-

fellow-power-grid-optimisation-gui-development-efx2

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Job Description

Research Fellow (Power Grid Optimisation & GUI Development) - EFX2

Job no: 498964

Department: Engineering **Contract type:** Contract

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As a University of Applied Learning, SIT works closely with industry in our research pursuits. Our research staff will have the opportunity to be equipped with applied research skill sets that are relevant to industry demands while working on research projects in SIT.

This role supports the Future Ship and System Design (FSSD) Programme, which aims to accelerate the decarbonisation and digitalisation of Singapore's maritime sector. The project focuses on developing planning methods to support the electrification of harbour craft fleets, using real-world operational data to derive charging demand profiles and infrastructure recommendations. As part of this work, we are seeking a Research Fellow to lead the development of a user-friendly GUI tool that will enable stakeholders to interact with planning models and visualise simulation outputs. The RF will also support increasing coordination between different projects as the number of case studies and incoming datasets continues to grow.

Key Responsibilities:

- Design and develop a GUI tool to make model inputs/outputs accessible to end-users
- Collaborate with project leads and researchers to ensure technical accuracy of the interface
- Support integration of simulation outputs across Projects 3-1 and 3-2
- Manage and process large sets of operational data for case study analysis
- Contribute expertise in power grid optimisation to enhance planning models
- Participate in stakeholder engagements and respond to evolving technical needs

Job Requirements:

- A strong background in power systems, energy modelling, or grid optimisation
- Proficiency in GUI development (e.g. using **Python Dash**, **Tkinter**, or **web-based frameworks**)
- Experience working with **data-driven simulation** and model validation in power grids (Ph.D level is mandatory)
- Ability to work independently and collaboratively in a fast-paced, multi-stakeholder environment
- Prior exposure to maritime or transport-related electrification studies is a plus

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Advertised: 10 Jul 2025 Singapore Standard Time

Applications close: 31 Dec 2025 Singapore Standard Time



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Contact Information

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

Contact

Singapore