

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

Direct Link: <https://www.AcademicKeys.com/r?job=259646>

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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  
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**Contact**

Singapore