

Research Fellow/Engineer (Hybrid cloud and edge-based
energy management) - DSK1
Singapore Institute of Technology

Direct Link: <https://www.AcademicKeys.com/r?job=216698>

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Posted Jul. 5, 2023, set to expire Jul. 5, 2024

Job Title Research Fellow/Engineer (Hybrid cloud and edge-based
energy management) - DSK1

Department Engineering

Institution Singapore Institute of Technology
Singapore, , Singapore

Date Posted Jul. 5, 2023

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Research Scientist/Associate

Academic Field(s) Energy Technology
Electrical and/or Electronics

Job Website <https://careers.singaporetech.edu.sg/cw/en/job/498461/research-fellowengineer-hybrid-cloud-and-edgebased-energy-management-dsk1>

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Job Description

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Job no: 498461

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.

The primary responsibility of this role is to deliver on an industry innovation research project where you will be part of the research team to design and develop a hybrid cloud and edge-based energy management (HCEEM) framework that enables virtual energy trading among distributed energy resources (DERs) and existing utilities, fostering a sustainable and efficient energy ecosystem.

Key Responsibilities

- Participate in and manage the research project with Principal Investigator (PI), Co-PIs, collaborators, and the research team members to conduct research on DERs and energy management techniques, focusing on the design and development of the HCEEM framework.
- Lead the development of algorithms, models, and methodologies for virtual energy trading among DERs and existing utilities.
- Collaborate with a multidisciplinary team of researchers and engineers to implement and test the HCEEM framework.
- Collect and analyze data from DERs, utilities, and energy markets to evaluate the performance and effectiveness of the framework.
- Publish research findings in reputable journals and present at conferences and workshops.
- Mentor and collaborate with graduate students and junior researchers, providing guidance and support in their research activities.
- Assist in writing grant proposals and securing funding for future research projects.
- Collaborate with industry partners and stakeholders to ensure the practical applicability and relevance of the research outcomes.
- Carry out Risk Assessment, and ensure compliance with Work, Safety, and Health Regulations.
- Coordinate procurement and liaison with vendors/suppliers.
- Work independently, as well as within a team, to ensure proper operation and maintenance of equipment.

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Job Requirements

- Ph.D. in Electrical Power Engineering, Energy Management, or a related field, with a strong research focus on energy management and distributed energy resources. Candidates who have submitted their thesis can apply too.
- Extensive knowledge of energy management techniques, Smart Grid concepts, and virtual energy trading.
- Experience in algorithm development, optimization, and data analysis in the context of energy systems.
- Proficiency in programming languages (e.g., Python, MATLAB) and simulation tools commonly used in energy research.
- Strong analytical and problem-solving skills, with the ability to critically evaluate and interpret research data.
- Excellent written and verbal communication skills, with the ability to publish research findings and present at conferences.
- Proven track record of research publications in reputable journals and conferences.
- Ability to work both independently and collaboratively in a research team environment.
- Prior experience with cloud computing, edge computing, or energy market modeling is advantageous.
- Knowledge of regulatory frameworks and policies related to energy management and DER integration is a plus.

Key Competencies

- Able to build and maintain strong working relationships with people within and external to the university.
- Self-directed learner who believes in continuous learning and development
- Proficient in technical writing and presentation
- Possess strong analytical and critical thinking skills.
- Show strong initiative and take ownership of work.

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Advertised: 05 Jul 2023 Singapore Standard Time

Applications close: 31 Dec 2023 Singapore Standard Time

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Contact Information

Please reference Academickeys in your cover letter when
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Contact

Singapore