

PhD Vacancy for January 2024 Intake

A vacancy is available for an industry Ph.D. scholarship with the IDEAS lab (<https://ideaslab.io>) at the National University of Singapore (<https://www.nus.edu.sg>) under the supervision of the lab's PI, Dr. Adrian Chong (<https://ideaslab.io/authors/admin/>). The scholarship provides a unique opportunity to work closely with an industry partner toward developing translational and impact-driven research.

The successful applicant will work on the topic "Towards deployable occupant-centric reinforcement learning for building HVAC control." Unlike most RL research focusing on algorithmic developments, this research will focus on a practical engineering perspective toward actual implementation. Experimental rigor would be a critical part of this project. You will have the unique opportunity to test, tune and evaluate your algorithm at an experimental testbed, followed by field implementation in a building with actual occupants.

Industry Partner: Kajima Corporation (<https://www.kajima.co.jp/english/>), the largest construction and real estate development company in Japan with more than 100 subsidiaries in North America, Asia, Europe, and Oceania.

Qualifications:

- Education background in Architecture or Mechanical Engineering, Building Technology or a related field.
- Strong interest in HVAC systems and advanced building controls.
- Strong interest in experimentation, implementation, and ensuring scientific rigor.
- Proficiency in data science and machine learning with demonstrated skills in programming languages such as Python and/or R.
- Good scientific writing, communication and learning skills.

Application (Open until filled)

PhD Program: <https://nusgs.nus.edu.sg/programme/phd-built-environment/>

Interested applicants should formerly apply to NUS for the Jan 2024 intake

(<https://cde.nus.edu.sg/dbe/graduate/phd-msc-building/>) and send the following documents to Dr.

Adrian Chong (adrian.chong@nus.edu.sg):

- CV (highlighting your experience in building science, building energy simulation and research)
- A brief personal statement (< 1 page) providing information about your background, relevant experiences and skills, motivations for undertaking a PhD, and how you fit into our research group.
- A brief research proposal (< 2 pages) consisting of a short literature review, formulation of research questions that will guide your research, and a short description of the research methods that will be employed to achieve your research objectives.
- A brief write-up (< 1 page) about the publications from IDEAS Lab that interest you, focusing on how you would extend them for your own research.
- At least 2 reference letters.

Note: Deadline for submitting an application to the National University of Singapore is 1 July 2023 for January 2024 intake.