

**Job Description:** We are looking for a highly motivated and passionate post-doctoral research fellow to work on a funded research project that looks into mixed-mode ventilation in the tropics. The aim of the research is to develop a real-time occupant centric sensing and control strategy that optimizes total building performance for mixed-mode ventilation in the tropics. The research assistant will be supervised by the principal investigator Dr. Adrian Chong from the Department of Building, School of Design and Environment, National University of Singapore.

**Job title:** Post-doctoral Research Fellow

**Qualifications and Skills:**

- P.hD. in Architecture, Engineering, Computer science or a related field
- Proficiency (with a demonstrated track record) in energy simulation software EnergyPlus and/or Modelica
- Proficiency in programming languages Python and/or R
- Good communication skills, and an ability to present research in both academic and non-academic venues.
- Good scientific writing, communication and learning skills

**Responsibilities:**

- Develop detailed calibrated physics-based models
- Establish a method of integrating real-time data with simulation models
- Investigate a scalable energy simulation method for use in real-time building controls
- Development of a hybrid controls framework that combines machine learning with physics-based models.
- Implement, evaluate and validate hybrid controls framework in an actual testbed.
- Demonstration of proposed framework in an actual building.
- Develop, implement, validate and document models and analysis tools as required.
- Organize, analyze and publish research in peer-reviewed scientific journals.
- Perform other duties as assigned.

**4. Monthly basic salary range:**

- SGD 5000 ~ SGD 7000 per month

**5. Closing date:** Open until filled

**Interested candidates apply by sending their CV and supporting documents to** Adrian Chong (Dr.), Department of Building, National University of Singapore  
Email: [adrian.chong@nus.edu.sg](mailto:adrian.chong@nus.edu.sg); Tel: 98210638