ADRIAN CHONG (Dr)

PhD (Building Performance and Diagnostics) Carnegie Mellon University, MSc (Building Science) NUS, BSc(Project & Facilities Management)(Hons) NUS

Assistant Professor
Department of the Built Environment
College of Design and Engineering
National University of Singapore
4 Architecture Drive
Singapore 117566
Email: adrian.chong@nus.edu.sg
Website: https://ideaslab.io

ACADEMIC QUALIFICATIONS:

- BSc (Project & Facilities Management) (Hons, 1st Class) (2010), National University of Singapore, Singapore
- MSc (Building Science) (2012), National University of Singapore, Singapore
- PhD (Building Performance and Diagnostics) (2017), Carnegie Mellon University, USA

EMPLOYMENT RECORDS:

- Research Assistant, Carnegie Mellon University (2012 – 2017)
- Research Intern, Toshiba Research and Development Center, Japan (Dec 2015 – Jan 2016)
- Teaching Assistant, National University of Singapore (2010 – 2017)
- Assistant Professor, National University of Singapore (2017 – present)

ADMINISTRATIVE LEADERSHIP:

- Deputy Programme Director, BSc (Projects and Facilities Management), NUS, Jan 2017 – present
- Coordinator, Practical Training Scheme, NUS, Jun 2017 – Dec 2017.
- Coordinator, Work Experience Internship, NUS, Jun 2017 – Dec 2017.

UNDERGRADUATE TEACHING:

- PF4213 Building Energy Analysis and Simulation
- PF1101 Introduction to Project Management

GRADUATE TEACHING:

- BPS5112 Green Building Integration and Evaluation Studio

RESEARCH INTERESTS:

- Building performance modeling and simulation
- Building data analytics
- Uncertainty analysis and quantification
- Bayesian calibration

SELECTED PUBLICATIONS:

- Chong, A, Augenbroe, G., & Yan, D. (2021). Occupancy data at different spatial resolutions: Building energy per-formance and model calibration. Applied Energy,286, 116492. doi:https://doi.org/10.1016/j.apenergy.2021.116492
- Jia, H. & Chong, A. (2021). Eplusr: A framework for integrating building energy simulation and data-driven analytics. Energy and Buildings, 110757. doi:https://doi.org/10.1016/j.enbuild.2021.110757
- Zhan,S. & Chong,A. (2021). Data requirements and performance evaluation of model predictive control in buildings: A modeling perspective. Renewable and Sustainable Energy Reviews,142,110835. doi:https://doi.org/10.1016/j.rser.2021.110835
- Zhan, S., Liu, Z.,Chong,A.*, & Yan, D. (2020). Building categorization revisited: A clustering-based approach tousing smart meter data for building energy benchmarking. Applied Energy, 269, 114920. doi:https://doi.org/10.1016/j.apenergy.2020.114920
- Chong,A., Xu,W., Chao,S., & Ngo,N.-T. (2019). Continuous-time bayesian calibration of energy models using BIM and energy data. Energy and Buildings,194, 177–190. doi:https://doi.org/10.1016/j.enbuild.2019.04.017
- Chong, A, K Menberg (2018). Guidelines for the Bayesian calibration of building energy models, Energy and Buildings, Vol. 174, pp. 527-547.
- Chong, A, K P Lam, M Pozzi, and J Yang (2017). Bayesian calibration of building energy models with large datasets, Energy and Buildings, Vol. 154, pp. 343-355.

PROFESSIONAL/CONSULTING ACTIVITIES:

- President, International Building Performance Simulation Association (IBPSA) - Singapore, 2021 – present.
- Subject Editor (Validation, Calibration and Uncertainty), Building Simulation - An International Journal (Springer), 2021 - present
- Fellow, Global Future Council (GFC) on Cities and Urbanization, World Economic Forum (WEF), 2017 – 2018

AWARDS:

- NUS Overseas Graduate Scholarship, National University of Singapore, 2012 – 2017
- IBPSA-USA Scholarship for BS2015 in Hyderabad, 2015
- Best innovative workflow for ASHRAE LowDown Showdown modeling challenge, 2015
- Best Proposal (Better Buildings Case Competition), U.S. Department of Energy, 2013
- Most Innovative Proposal (Better Buildings Case Competition), U.S. Department of Energy, 2013
- Lee Kuan Yew Gold Medal, National University of Singapore, 2010
- SISV Gold Medal, National University of Singapore, 2010
- NUS Honorary Award, National University of Singapore, 2009
- NUS President Sports Award – Team, National University of Singapore, 2007