

Journal Articles

1. **D. Zhai**, T. Chaudhuri and Y. C. Soh, "Evaluations on bayesian gaussian process and augmented firefly algorithm for energy efficient acmv systems under two case studies," *Applied Energy*, 2018.[Submitted]
2. **D. Zhai**, T. Chaudhuri, Y. C. Soh, "Machine learning models of predictive thermal state using one-spot skin temperature measurement," *Applied Energy*, 2018. [Submitted]
3. **D. Zhai**, T. Chaudhuri and Y. C. Soh, "Modeling and optimization of different sparse augmented firefly algorithms for acmv systems under two case studies," *Building and Environment*, vol. 125, pp. 129-142, 2017.
4. **D. Zhai** and Y. C. Soh, "Balancing indoor thermal comfort and energy consumption of acmv systems via sparse swarm algorithms in optimizations," *Energy and Buildings*, vol. 149, pp. 1–15, 2017.
5. T. Chaudhuri, **D. Zhai**, Y. C. Soh, H. Li and L. Xie, "Thermal comfort prediction using normalized skin temperature in a uniform built environment," *Energy and Buildings*, vol. 159, pp. 426–440, 2017.
6. T. Chaudhuri, **D. Zhai**, Y. C. Soh, H. Li and L. Xie, "Random forest based thermal comfort prediction from gender-specific physiological parameters using wearable sensing technology," *Energy and Buildings*, vol. 166, pp. 391–406, 2018.
7. X. Ou, W. Cai, X. He and **D. Zhai**, "Experimental investigations on heat and mass transfer performances of a liquid desiccant cooling and dehumidification system," *Applied Energy*, vol 220, pp. 164-175, 2018
8. X. Ou, W. Cai, X. He, X. Wang and **D. Zhai**, "A dynamic modeling of liquid desiccant cooling and dehumidification system for control and optimization," *Energy and Buildings*, vol. 163, pp. 44–57, 2017.
9. C. Jiang, Y. C. Soh, H. Li, M. K. Masood, Z. Wei, X. Zhou, **D. Zhai**, "CFD results calibration from sparse sensor observations with a case study for indoor thermal map," *Building and Environment*, vol. 117, pp. 166–177, 2017.

Conference Articles

1. **D. Zhai**, T. Chaudhuri, Y. C. Soh, X. Ou and C. Jiang, "Improvement of Energy Efficiency of Markov ACMV Systems based on PTS Information of Occupants," 2018 IEEE World Congress on Computational Intelligence (WCCI), (2018). [To Appear]
2. T. Chaudhuri, **D. Zhai**, Y. C. Soh, H. Li and L. Xie, "Convolutional Neural Network and Kernel Methods for Occupant Thermal State Detection using Wearable Technology," 2018 IEEE World Congress on Computational Intelligence (WCCI), (2018). [To Appear]
3. **D. Zhai**, T. Chaudhuri and Y. C. Soh, "Energy efficiency improvement with k-means approach to thermal comfort for acmv systems of smart buildings," 2017 IEEE Asian Conference on Energy, Power and Transportation Electrification (ACEPT), pp. 203-208 (2017).
4. **D. Zhai** and Y. C. Soh, "Balancing indoor thermal comfort and energy consumption of air-conditioning and mechanical ventilation systems via sparse Firefly algorithm optimization," 2017 IEEE 30th International Joint Conference on Neural Networks (IJCNN), pp. 1488–1494 (2017).
5. **D. Zhai**, Y. C. Soh and W. Cai, "Operating points as communication bridge between energy evaluation with air temperature and velocity based on extreme learning machine (ELM) models," 2016 IEEE 11th International Conference on Industrial Electronics and Applications (ICIEA), pp. 712–716 (2016).
6. **D. Zhai** and Y. C. Soh, "Research on indoor air-flow measurements and predictions with different methods," 2015 International OSA Network of Students (IONS), The Optical Society, pp. 52–56 (2015).