

**Hye-Won Dong, Ph.D. Candidate**  
Department of Architectural Engineering

## **EDUCATION**

- Ph.D. Candidate, Department of Architectural Engineering, Hanyang University (2017–Present)  
Thesis Topic: Energy Performance of Waste Heat Recovery Organic Rankine based Combined Heat and Power System for Zero-energy Buildings
- Master of Science in Architectural Engineering, Department of Architectural Engineering, Hanyang University (2017)  
Thesis: Primary Energy Savings and CO<sub>2</sub> Emission Rate of District Heat Source Applied to Desiccant-enhanced Evaporative Cooling System
- Bachelor of Engineering, Department of Architectural Engineering, Hanyang University (2015)  
Thesis: Development of User friendly Performance Prediction Model for Proton Exchange Membrane Fuel Cell by Design of Experiments

## **PROFESSIONAL ACTIVITIES**

- American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) Student Member (2015–Present)
- Korean Institute of Architectural Sustainable Environment and Building System (KIAEBS) Member (2015–Present)
- The Society of Air-conditioning and Refrigerating Engineers of Korea (SAREK) Member (2017–Present)
- Architectural Institute of Korea (AIK) Member (2015–Present)

## **HONORS AND AWARDS**

- Best Presentation Award, The Society of Air-conditioning and Refrigerating Engineers of Korea (2020)
- WISSET-SAREK New Researcher Award (2019)
- Best Presentation Award, Korean Institute of Architectural Sustainable Environment and Building System (2015, 2016, 2018)
- Best Paper Award, The Society of Air-conditioning and Refrigerating Engineers of Korea (2017, 2020)
- Best Presentation Award, Architectural Institute of Korea (2016)

## **RECENT PUBLICATIONS**

**Dong, H.W.**, Jeong, J.W. (2020). "Design and preliminary results of organic rankine cycle for liquid desiccant system", Applied Thermal Engineering, 178

**Dong, H.W.**, Kim, B.J., Yoon, S.Y., Jeong, J.W. (2020). "Energy benefit of organic Rankine cycle in high-rise apartment building served by centralized liquid desiccant and evaporative cooling-assisted ventilation system", Sustainable Cities and Society, 60

**Dong, H.W.**, Jeong, J.W. (2020). "Energy benefits of organic Rankine cycle in a liquid desiccant and evaporative cooling-assisted air conditioning system", Renewable Energy, 147, pp.2358–2373

**Dong, H.W.**, Cho, H.J., Park, J.Y., & Jeong, J.W. (2019). "Optimum regeneration temperature of a desiccant solution in a packaged liquid desiccant-assisted air conditioning unit", International Journal of Refrigeration, 101, pp.155–166

Park, J.Y., **Dong, H.W.**, Cho, H.J., & Jeong, J.W. (2019). "Energy benefit of a cascade liquid desiccant dehumidification in a desiccant and evaporative cooling-assisted building air-conditioning system", *Applied Thermal Engineering*, 147, pp.291–301

Kim, W., **Dong, H.W.**, Park, J., Sung, M., & Jeong, J.W. (2018). "Impact of an ultraviolet reactor on the improvement of air quality leaving a direct evaporative cooler", *Sustainability*, 10(4), pp.1–16

**Dong, H.W.**, Lee, S.J., Yoon, D.S., Park, J.Y., & Jeong, J.W. (2017). "Impact of district heat source on primary energy savings of a desiccant-enhanced evaporative cooling system", *Energy*, 123, pp.432–444

Lee, S.J., Kim, H.J., **Dong, H.W.**, & Jeong, J.W. (2017). "Energy saving assessment of a desiccant-enhanced evaporative cooling system in variable air volume applications", *Applied Thermal Engineering*, 117, pp.94–108

Kim, M.H., **Dong, H.W.**, Park, J.Y., & Jeong, J.W. (2016). "Primary energy savings in desiccant and evaporative cooling-assisted 100% outdoor air system combined with a fuel cell", *Applied Energy*, 180, pp.446–456

Ham, S.W., Jo, S.Y., **Dong, H.W.**, & Jeong, J.W. (2015). "A simplified PEM fuel cell model for building cogeneration applications". *Energy and Buildings*, 107, p.213–225