

Heewoong Park

PERSONAL INFORMATION

E-mail: heewoong.park@lge.com

EDUCATION

M.S. in Department of Mechanical and Intelligent Engineering (Feb. 2007)

Pusan National University, Busan, South Korea

Thesis: Pyroelectric Infrared Sensor based Indoor Location Awareness System

B.S. in School of Mechanical Engineering (Feb. 2005)

Pusan National University, Busan, South Korea

Interests

Vapor Compression Refrigerant Cycle, Heat Recovery, Thermal Energy Storage, Heat Pump Water Heater, Virtual Product Design, Smart Sensor Application, Demand Response

Work Experience

LG electronics, Jan. 2007 ~ Present

Experiences

Hot Water Tank with Air-to-Water Heat Pump R&D	2019~2021
Air-to-Water Heat Pump and Heat Recovery System R&D	2016~2018
Variable Refrigerant Flow System and Frost/Defrost R&D	2013~2015
Heat Pump and Thermal Storage System R&D	2010~2012
Residential Air Conditioning System R&D	2007~2009

Accomplishments

- Developed a R32 Air-to-Water Heat Pump (Therma-V) ('18)
- Developed a Variable Refrigerant Flow System of LG (Multi-V Pro) ('15)
- Developed a Cascade Heat Pump for High Temperature Thermal Storage (System Boiler) ('12)
- Developed Smart Residential Air-Conditioner based on an Indoor Human Location ('09)

KEY SKILLS AND COMPETENCIES

- Knowledge and experience in air-to-water heat pump, VRF and application business
- Experience in measurement and analysis of thermal systems and electrical devices
- Refrigerants system simulation(C language, EES, Coil designer, Refprop)
- 3D CAD(Siemens NX), CFD(Ansys CFX), Data Acquisition(NI DAQ)
- Embedded micro controller (intel 8051) / Network (IEEE 802.11, Controller Area Network)

Conference Publications

Park, N., Jung, S., **Park, H.**, Choi, H., Chin, S. & Jung, H., Payback Period Estimation of Ground-Source and Air-Source Multi Heat Pumps in Korea Based on Yearly Running Cost Simulation, International Refrigeration and Air Conditioning Conference at Purdue, 2496 1-14, 2010

Park, H., Ha, K., Lee, G. & Lee, S., Evaluation of pyroelectric infrared arrangement for indoor resident location awareness system, Korean Society for Precision Engineering Conference, 13-14, 2006

Park, H., Oh, G., Ha, K. & Lee, S., Development of PIR sensor based indoor location aware system for smart home, Institute of Control, Robotics and Systems Conference, 172-177, 2005

Selected Patents (Total 61 patents)

Park, H.W., Park, N. M., Shin, J. S., Oh, S. T., Bypass Cycle, US Patent US10465948, 2019

Park, H.W., Park, N. M., Heat Recovery Cycle, EU Patent EP2889557B1, 2019

Park, H.W., Park, N. H., Kim, D. J., Indoor Location Awareness System, EU Patent EU2206973B1, 2018

Park, H.W., Shin, J. S., Heat Recovery System, Korea Patent 10-1908305, 2018

Park, H.W., Shin, J. S., Oh, S. T., Defrost Cycle, Korea Patent 10-1867858, 2018

Park, H.W., Shin, J. S., Oh, S. T., Cooling Device, EU Patent EP3054225B1, 2018

Park, H.W., Park, N. M., Choi, H. J., Heat Pump, EU Patent EP2381192B1, 2017

Park, H.W., Park, N. M., Thermal Energy Storage, Korea Patent 10-1591188, 2016