

Faculty Name : Wonsuk Ko

Assistant Professor, Electrical Engineering Department, King Saud University

EDUCATION

Degree	Discipline	Institution	Year
Ph.D.	Electrical Engineering	Univ. of Central Florida	2007
M.S.	Electrical Engineering	Kyungwon University	1998
B.S.	Electrical Engineering	Kyungwon University	1996

ACADEMIC EXPERIENCE

Since Dec. 2014 Assistant Professor

Department of Electrical Engineering, King Saud University, KSA

Sep. 2008 – Dec. 2013 Instructor

Department of Energy IT, Gachon University, KOREA

Sep. 2008 – Dec. 2013 Researcher

Gachon Energy Research Institute, Gachon University, KOREA

- Researched SmartGrid, Building Energy Management, Grid-connected Desalination

Jan. 2004 – Mar. 2007 Graduate Research Assistant

Florida Space Institute, Univ. of Central Florida, Orlando, FL

- Guided participant students of satellite design competition for Attitude Determination and Control Subsystem, FUNSAT (Florida University Satellite Design)

- Mentored 6 students from France, Internship

CERTIFICATIONS OR PROFESSIONAL REGISTRATIONS

- Patent, SYSTEM AND METHOD FOR PROVIDING ADDITIONAL SERVICE OF ELECTRIC VEHICLE CHARGING STATION, IPC : H02J 7/00(2013.01) G06Q 50/30B0(2013.01), Korea
- Patent, SYSTEM AND METHOD FOR PROVIDING ADDITIONAL SERVICE IN CHARGING BATTERY CHANGE OF ELECTRIC VEHICLE, IPC :H01M 10/44(2013.01) H02J 7/00(2013.01) B60L 11/18(2013.01) G06Q 50/30B0(2013.01), Korea

SERVICE ACTIVITIES

- Institute of Electrical and Electronics Engineers Trans. on Magnetics, Reviewer
- Institute of Electrical and Electronics Engineers, Member
- Reviewer, IFAC 2008 World Congress
- Reviewer, MMM08 annual conference
- Reviewer, Computer Applications Symposium, CSIE 2009
- Reviewer, Journal Automatica 2009
- Power IT Standard Forum, Committee, WG 13

FUNDED RESEARCH GRANTS

- Researched Development of Supertall Building Management Technology funded by Korea Government, Project Manager (2011~2014)
- Researched Development of desalination system connected Renewable System by Korea Government
- Researched A suitable Site environment search for Korea Micro Energy Grid Funded by K-MEG (2012)
- Researched End Node Operation Technology based on XML Standard funded by Korea Institute of Energy Research (2011)
- Researched Development of Smart City Energy Management System funded by Korea Government (2011~2012) Researched Development of Cost Reduction for Desalination System based on SmartGrid funded by Doosan Heavy Industry, Project Manager. (2010~2012)
- Researched Consumer Portal System based on Power IT funded by Korea Government, Project Manager. (2005~2010)

SELECTED PUBLICATIONS

- W.Ko and T.Han, "Analysis of Consumer Preference for Electric Vehicles", IEEE Trans. Smart Grid, Vol.4, No.1 Mar 2013
- T.Han, T.Zhungfu, and W.Ko "Design of Time-varying Rate Considering CO₂ Emission" IEEE Trans. Smart Grid, Vol.4, No.1 Mar 2013
- C.Ham, W.Ko, K.Lin and Y.Joo, "Study of a Hybrid Magnet Array for an Electrodynamic Maglev Control", Journal of Magnetism, Vol 18, No 3, 2013
- W.Ko, J.Lee and C.Ham, "A Grid-Connected Desalination Plant Operation" Journal of Systemics, Cybernetics and Informatics Vol.11, No 1, 2013
- Budka.K, W.Ko and et al. "GERI – Bell Labs Smart Grid Research Focus: Economic Modeling, Networking, and Security & Privacy", Smart Grid Comm, IEEE, 2010
- W.Ko and et al. "Dynamics and Controls of a Maglev Vehicle", 2009 IEEE International Symposium on Industrial Electronics
- J.Choi and **W.Ko**, "A Study on LED Dimming Control Platform Based on XML", KIIEE, Vol. 26. No.4, Apr 2012 (printed in Korea)
- J.Lee, J.Choi, S.Bae and **W.Ko** "The Cost Reduction Effect of Gridable Sea Water Reverse Osmosis Desalination Plant", KIIEE, Vol. 25. No.1, Jan. 2011 (printed in Korea)
- J.Lee, Y.Nam, and **W.Ko**, "Calculating the Optimal Capacity of Battery Storage System for Power System in Je-Ju", KIIEE, Vol. 24. No.8, Aug. 2010 (printed in Korea)
- J.Lee, **W.Ko** and et al. "Calculating the Optimal Capacity of Energy Storage System to Reduce CO₂ Emission for Power System in Je-Ju", KIEE, Vol 59, No.7, Jul, 2010 (printed in Korea)