

Seungkoo Lee

Principal Engineer, Global Technology Connection, Inc.

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Education

Ph.D. in Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA, 2002

Master of Science in Electrical Engineering, Yonsei University, Seoul, Korea, 1992

Bachelor of Science in Electrical Engineering, Yonsei University, Seoul, Korea, 1990

Principal Field of Expertise

Research and development in wireless/wired sensor applications, system modeling and simulation, systems and control, and/or digital signal processing

Professional Experience

Global Technology Connection, Inc., Atlanta, Georgia 2007-Present
Principal Engineer

Williams-Pyro, Inc., Fort Worth, Texas 2003-2007
Electrical Research Engineer

Intelligent Control Systems Laboratory, Georgia Institute of Technology, Atlanta, GA 1999 -12/2002
Graduate Research Assistant

Digital Appliance Laboratory, LG Electronics Inc., Seoul, Korea 1992 - 1998
Electrical Research Engineer

Honors & Awards

LG Industrial Scholarship from September, 1990, until July, 1992

Memberships & Activities

- Member of the IEEE (The Institute of Electrical and Electronics Engineers) since 2003
- Student Member of the IEEE from 2000 until 2002
- Member of the Korea Fuzzy Logic and Intelligent System Society from 1997 until 1998
- Member of the Korean Institute of Telematics and Electronics from 1992 until 1996
- Representative of Yonsei University Alumni at Georgia Institute of Technology from September, 2000, until August, 2001
- Senior student representative of EE dept. Yonsei Univ. during Fall, 1990

Publications

- Advanced Electrical Signature Analysis of Aircraft Electrical Generators, Rufus,F., Lee, S., Thakker, A., Field, S. A., Kumbar, N., SAE 2009 AeroTech Congress and Exhibition, 2009-01-3162, October 2009.
- Advanced Diagnostics of Aircraft Electrical Generators, Rufus, F., Lee, S., Thakker, A., Field, S.A., Kumbar, N., SAE International Journal of Aerospace, vol. 1 no. 1, 1064-1070, April 2009.
- Health monitoring algorithms for space application batteries, Rufus, F., Seungkoo Lee, Thakker, A., International Conference on Prognostics and Health Management, PHM 2008, 2008.
- A data fusion method for machine fault detection and identification, Lee,S., Rufus,F., and Thakker, A.,IEEE International Conference on Prognostics and Health Management 2008, Denver, CO, October 2008.

- An Architecture for a Diagnostic/Prognostic System with Rough Set Feature Selection and Diagnostic Decision Fusion Capabilities, S. Lee, , PhD Dissertation, Georgia Institute of Technology, December 2002.
- An application of rough set theory for automotive glass inspection, S. Lee and G. Vachtsevanos, Journal of Engineering Manufacture, Part B of the Proceedings of Institution of Mechanical Engineers, Vol. 216, pp.637-641, 2002.
- An application of rough set theory for automotive glass inspection, S. Lee and G. Vachtsevanos, IFDICON 2001, Santorini, Greece, 2001.
- Rough Set Feature Selection and Diagnostic Rule Generation for Industrial Applications, S. Lee et.al., RSCTC '2002 conference, Oct., 2002.
- A Real-Time Architecture for Prognostic Enhancements to Diagnostic Systems, N. Propes, S. Lee et.al., MARCON 2002, May, 2002.
- A Novel Architecture for an Integrated Fault Diagnostic/ Prognostic System, G. Zhang, S. Lee et.al., AAAI, March 2002.
- An Application of Neural Network for the Intelligent Control for Home Appliances, S. Lee, S. Yun, J. Kim, Proceedings of KFIS Spring Conference '97, Mar., 1997.
- Finding a Temperature Control Method in Microwave Oven using Genetic Algorithms, L. Choi, S. Lee, H. Lim, Proceedings of KFIS Fall Conference'95, Nov., 1995.
- Application of Neural Network for the Intelligent Control of Computer-aided Testing and Adjustment System, S. Lee, Y. Koo, K. Woo, Journal of the Korean Telematics and Electronics, Jan., 1993.

Patents

11 Korean and 1 U.S. Patents in home appliance control and sensing areas listed below

- U.S. Patent# 05736717, Microwave oven with vapor sensor and audible cooking state indicator, April 7, 1998
- Korean Patent# 10-0299757-0000 An apparatus and methods to cancel noise from a DC motor, June 12, 2001
- Korean Patent 10-0299758-0000, An apparatus and methods to cancel to reduce noise from a DC motor, June 12, 2001
- Korean Patent# 10-0275971-0000, An apparatus and methods for automatic load detection in a food processor and dryer, September 26 2000
- Korean Patent# 10-0270023-0000, An apparatus for food garbage using and method thereof, July 27, 2000
- Korean Patent# 10-0244388-0000, Method of disposing food garbage, November 22, 1999
- Korean Patent# 10-0206834-0000, Apparatus and methods for eliminating noise by active control, April 10, 1999
- Korean Patent# 20-0151291-0000, Uniformly heating apparatus for microwave oven, April 15, 1999
- Korean Patent# 10-0189504-0000, Food state alarming apparatus, January 16, 1999
- Korean Patent# 10-0156387-0000, Grill microwave oven control apparatus and its methods, July 22, 1998
- Korean Patent# 10-0133437-0000, An apparatus and methods for automatic lid detection in a microwave oven and cook time control, December 22, 1997
- Korean Patent# 20-0097716-0000, Microwave oven, July 1, 1996

Technical Skills

- Digital Signal Processor Programming
- Micro-controller Programming
- Field Programmable Gate Arrays Programming

- Rough set data mining and data analysis for diagnostics/prognostics
- System modeling, simulation, and Control
- Control hardware/software design
- Strong programming experience with Visual C++, Visual Basic, Assembler Language, C/C++, MatLab/SimuLink, Pascal, Fortran, and LabView