Dong Won Kim - Curriculum Vitae

Address: 253 Yong Hyun-Dong, Nam-Ku, Incheon, South Korea 402-752 Website: http://dwnkim.egloos.com/ E-mail: dwnkim@inhatc.ac.kr , dongwon.kim25@gmail.com Phone: +82-10-4400-3689

Selected Publications and Presentations

BOOK CHAPTERS

Dongwon Kim, Gwi-Tae Park, Advanced Humanoid Robot Based on the Evolutionary Inductive Selforganizing Network, Humanoid Robots-New Developments, pp. 449-466, 2007. http://books.i-techonline.com/book.php?id=8&PHPSESSID=kj5jtdn18hb3sar13pk9084uu4

INTERNATIONAL JOURNAL

Dong W. Kim, Ju-Hyun Kang, Gwi-Tae Park, "Implementation of Door-Opening-Behavior by Home Service Robot in a House" *International Journal of Robotics and Automation*, vol. 25, no. 3, 2010. (In Press, 2010)

Dongwon Kim, C.W. de Silva, Gwi-Tae Park, " Evolutionary Design of Sugeno-type Fuzzy Systems for Modeling Humanoid Robots" *International Journal of Systems Science*, vol. 41, no. 7, pp. 875-888, 2010 July.

Dongwon Kim, Sam-Jun Seo, C.W. de Silva, Gwi-Tae Park, "Use of Support Vector Regression in Stable Trajectory Generation for Walking Humanoid Robots" *ETRI Journal*, vol. 31, no. 5, 2009 (October) http://etrij.etri.re.kr/

Dongwon Kim, Sam-Jun Seo, Gwi-Tae Park, "Hybrid GMDH-type Modeling for Nonlinear Systems: Synergism to Intelligent Identification," Advances in Engineering Software, vol. 40, no. 10, pp. 1087-1094, 2009 (October)

http://dx.doi.org/10.1016/j.advengsoft.2009.01.029

Dongwon Kim, Gwi-Tae Park, "Advanced Self-Organizing Polynomial Neural Network," *Neural Computing & Applications Journal*, Vol. 16, No. 4-5, pp. 443-452, May, 2007 http://www.springerlink.com/content/h231430p55511113/

- Dongwon Kim, Gwi-Tae Park, "Use of Support Vector Machines: Synergism to Intelligent Humanoid Robot Walking Down on a Slope," *Lecture Notes in Computer Science*, Vol. 4253, pp. 670 -676, Oct, 2006. http://www.springerlink.com/content/2h70303411172511/
- Dongwon Kim, Gwi-Tae Park, "Walking Pattern Analysis of Humanoid Robot Using Support Vector Regression," *Lecture Notes in Computer Science*, Vol. 4253, pp. 255- 262, Oct, 2006.

http://www.springerlink.com/content/u22h073740842863/?p=ad88f75b25614c5ba329979827c17c6d&pi=0

Dongwon Kim, Gwi-Tae Park, "A new design of Polynomial Neural Networks in the Framework of Genetic Algorithms," *IEICE Transactions on Information and Systems*. Vol. E89-D, No.8, pp. 2429-2438, Aug. 2006.

http://search.ieice.org/bin/summary.php?id=e89-d_8_2429&category=D&lang=&year=2006

- **Dongwon Kim**, Sung-Hoe Hur, and Gwi-Tae Park, "Building automation system via LonWorks and Linux based personal computer," *Automation in Construction*, vol. 15, no. 4, pp. 522-530, July, 2006.
- Dongwon Kim, Gwi-Tae Park, "Modeling pH Neutralization Process Via Support Vector Machines," *Lecture Notes in Computer Science*, Vol. 4031, pp. 830 - 837, Jun 2006.
- Dongwon Kim, and Gwi-Tae Park, "A Hybrid Fuzzy Model in Nonlinear System Modeling," Journal of Intelligent & Fuzzy Systems, Vol. 17, no. 5, pp. 417-430, Jan., 2006. http://iospress.metapress.com/content/a6c7071ewmq42e2v/
- Sung-Hoe Huh, Kyo-Beum Lee, Dongwon Kim, Ick Choy, and Gwi-Tae Park, "Sensorless Speed Control System Using a Neural Network," *International Journal of Control, Automation, and Systems*, vol.3, no.4, pp.612-619, 2005. 12

http://www.ijcas.com/

- Dongwon Kim, Nak-Hyun Kim, Sam-Jun Seo, Gwi-Tae Park, "Use of Fuzzy System in Modeling of Biped Walking Robot," Int. J. Knowledge-Based & Intell. Eng. Syst., vol. 9, no. 4, pp. 341-349, 2005 (Dec.)
- Jang-Hyun Park, Sam-Jun Seo, Dongwon Kim and Gwi-Tae Park, "Adaptive Fuzzy Output-Feedback Controller for SISO Affine Nonlinear Systems Without State Observer," *Lecture Notes in Computer Science*, vol. 3682, pp. 549-558, 2005, September

http://www.springerlink.com/content/a6g4mj1aef7b9c7m/?p=a81b58999f354c2cac8fe9cd6240aedb&pi=0

Dongwon Kim, and Gwi-Tae Park, "Using Interval Singleton Type 2 Fuzzy Logic System in Corrupted Time Series Modelling," *Lecture Notes in Computer Science*, vol. 3682, pp. 566-572, 2005, September http://www.springerlink.com/content/bnrd6adnc19jhdbm/?p=e17c9e9816cd470a9ebe25568ecafaf7&pi=3

Dongwon Kim, Jang-Hyun Park, Sam-Jun Seo and Gwi-Tae Park, "Modeling of Nonlinear Static System Via Neural Network Based Intelligent Technology," *Lecture Notes in Computer Science*, vol. 3682, pp. 207-213, 2005, September

http://www.springerlink.com/content/dtwh5xhjk0r7m39v/?p=4a673cef938f43a5b7d25e6d552ea17d&pi=0

Dongwon Kim, Sung-Hoe Hur, Sam-Jun Seo, and Gwi-Tae Park, "Use of Adaptive Learning Radial Basis Function Network in Real-Time Motion Tracking of a Robot Manipulator," *Lecture Notes in Computer Science*, vol. 3612, pp. 1099 - 1108, 2005, August.

http://www.springerlink.com/content/a4rrp06k28duqa7g/?p=e37b6199cd114d86b99efe01fb5c6a1d&pi=0

Dongwon Kim, Sam-Jun Seo, and Gwi-Tae Park, "Zero moment point trajectory modeling of biped walking robot using adaptive neuro-fuzzy system," *IEE Proceedings-Control Theory And Applications*, vol, 152, no. 4, pp. 411-426, July 2005.

http://scitation.aip.org/dbt/dbt.jsp?KEY=ICTAEX&Volume=152&Issue=4

Dongwon Kim, Sung-Hoe Hur, Sam-Jun Seo, and Gwi-Tae Park, "Self-Organizing Radial Basis Function Network Modeling for Robot manipulator," *Lecture Notes in Computer Science*, vol, 3533, pp. 579-587, 2005, June.

http://www.springerlink.com/content/r3gpm5kt4uvthkgc/?p=ef00695b31bb4d2297c7dd4eb4daaa2c&pi=0

- Dongwon Kim, Gwi-Tae Park, "GMDH-type Neural Network Modeling in Evolutionary Optimization," Lecture Notes in Computer Science, vol, 3533, pp. 563-570, 2005, June. http://www.springerlink.com/content/h12mmnpw2ftcvky3/?p=ea7d53f6ae62483098fcc6cb26fc6187&pi=0
- Dongwon Kim, and Gwi-Tae Park, "Uncertain Rule-Based Fuzzy Technique: Nonsingleton Fuzzy Logic System for Corrupted Time Series Analysis," Int. J. Fuzzy Logic Intell Syst., vol. 4, no. 3, pp. 361-365, 2004 (Dec.)
- **Dongwon Kim**, and Sung-Hoe Hur, Gwi-Tae Park, "Modeling Corrupted Time Series Data via Nonsingleton Fuzzy Logic System," *Lecture Notes in Computer Science*, vol, 3316, pp. 1298-1303, 2004, Nov.

- **Dongwon Kim**, and Sam-Jun Seo, Gwi-Tae Park, "Hybrid Fuzzy-Neural Architecture and Its Application to Time Series Modeling," *Lecture Notes in Artificial Intelligence*, vol, 3215, pp. 603-609, 2004, Sep.
- **Dongwon Kim**, Ju-Hyun Kang, Chang-Soon Hwang, and Gwi-Tae Park, "Mobile Robot for Door Opening in a House," *Lecture Notes in Artificial Intelligence*, vol, 3215, pp. 596-602, 2004, Sep.
- Dongwon Kim, Nak-Hyun Kim, Sam-Jun Seo, and Gwi-Tae Park, "Fuzzy Modeling of Zero Moment Point Trajectory for a Biped Walking Robot," *Lecture Notes in Artificial Intelligence*, vol, 3214, pp. 716-722, 2004, Sep.
- Dongwon Kim, Byungwhan Kim, Gwi-Tae Park, "A Plasma Etching Process Modeling Via a Polynomial Neural Network," *ETRI Journal*, vol. 26, no. 4, pp.297-306, 2004(August)
- Dongwon Kim, Sung-Hoe Huh, Sam-Jun Seo, and Gwi-Tae Park, "A Novel Soft Computing Technique for the Shortcoming of the Polynomial Neural Network," *International Journal of Control, Automation, and Systems*, vol 2, no. 2, pp. 189-200, 2004 (June)
- Dongwon Kim, Byungwhan Kim, Il-Joo, Shim, Gwi-Tae Park, "Plasma Etch Prediction Using Genetic Algorithm Based Polynomial Neural Network," *Surface Engineering*, vol. 20, no. 1, pp. 31-36(6), 1 February 2004,
- Byungwhan Kim, Dongwon Kim, Gwi Tae Park, "Prediction of Plasma Etching Using Polynomial Neural Network," *IEEE Transactions On Plasma Science*, vol. 31, no. 6, pp. 1330-1336, 2003 (December)

PATENTS

- Dong-Won Kim, Sung-Hoe Huh, and Gwi-Tae Park, "Method for Speed Control of AC Motor Using the Radial Basis Function Network Observer," Korea Patent 10-2005-0008384, January 29, 2005,
- Dong-Won Kim, and Gwi-Tae Park, "Method for controlling pose of robot with using neural network, Recording medium thereof, Apparatus for controlling pose of robot with using neuron-network and Robot therewith," Korea Patent 10-2005-0136357, December 31, 2005
- Dong-Won Kim, and Gwi-Tae Park, "Method for designing walking control system of walking robot and Recording medium thereof, Apparatus for designing walking control system of walking robot and Robot thereby," Korea Patent 10-0757514, September 4, 2007

PROJECT

1.	Title:	Development of Intelligent Speed Controller for Induction Motor Using RBFN
	Support from:	Korea Electrical Engineering & Science Research Institute
	Period:	2003. 12. 01 ~ 2004. 11. 30
2.	Title:	Study on the parameter optimization of RBFN using genetic algorithm and its
		application
	Support from:	Korea University
	Period:	2004. 03. 01 ~ 2005. 02. 28
3.	Title:	Tele-Monitoring of diesel engine and development of monitoring software
	Support from:	Hyun-dai Heavy Industrial Company
	Period:	2005. 03 ~ 2006. 02
4.	Title:	A Study on the Walking Pattern Analysis and its Application to Intelligent Walking
		Control for Flexible Humanoid Robot-Moving
	Support from:	Korea Science and Engineering Foundation (KOSEF)
	Period:	2005. 04 ~ 2007. 03
5.	Title:	Autonomous environment recognition and walking intelligence humanoid-robot
		based on the neuro-fuzzy and soft computing
	Support from:	Korea Research Foundation (KRF)
	Visit Place:	UC-Berkeley hosted by Prof. Lotfi A. Zadeh
	Period:	2008. 01 ~ 2008. 12