

Kyung-Joong Kim

Associate Professor

Department of Computer Science and Engineering

Sejong University, Seoul, South Korea

Cognition & Intelligence Laboratory (<http://cilab.sejong.ac.kr>)

Tel: +82-2-3408-3838

E-mail: kimkj@sejong.ac.kr

1. Academic Positions

09/2013 – Now	Sejong University, South Korea	Associate Professor
09/2010 – 08/2013	Sejong University, South Korea	Assistant Professor
03/2009 – 08/2010	Sejong University, South Korea	Full-Time Lecturer
07/2007 – 02/2009	Cornell University, USA	Postdoctoral Researcher (Advisor : Prof. Hod Lipson)
03/2007 – 06/2007	Yonsei University, South Korea	Postdoctoral Researcher (Advisor : Prof. Sung-Bae Cho)

2. Education

03/2002 – 02/2007	Ph.D., Computer Science, Yonsei University, South Korea (Prof. Sung-Bae Cho) <i>Title : Speciated Evolutionary Modularization and Integration for Real-World Applications</i>
03/2000 – 02/2002	M.S., Computer Science, Yonsei University, South Korea (Prof. Sung-Bae Cho) <i>Title : Personalized Link-based Search Engine using Graphical Models</i>
03/1996 – 02/2000	B.S., Computer Science, Yonsei University, South Korea

3. Research Interest

Game Intelligence, Data Mining, Cognitive Robotics, Machine Learning, Fault-Tolerant Systems

4. Students

// Current

Hyun-Soo Park (Ph.D. Program Since 2013 Spring)

Du-Mim Yoon (Ph.D. Program Since 2013 Fall)

Sehar Shahzad Farooq (Integrated Program Since 2012 Spring)

Hyun-Tae Kim (M.S. Program Since 2013 Spring)

In-Suk Oh (M.S. Program Since 2014 Fall)

// Alumni

Jung-Guk Park (M.S. Feb 2012) – Ph.D. Program, KAIST

Du-Mim Yoon (M.S. Aug 2012) – Ph.D. Program, Sejong University

Hyun-Soo Park (M.S. Feb 2013) – Ph.D. Program, Sejong University

5. Publications

5.1. International Journal

- I.-S. Oh, J.-E. Lee, and **K.-J. Kim**, “Proactive News Article Summarization Service using Personal Intention Models,” *Evolutionary and Institutional Economic Review*, 2014 (accepted).
- J. A. Awan, D.-H. Bae, and **K.-J. Kim**, “Identification and trend analysis of homogeneous rainfall zones over the east asia monsoon region,” *Journal of Climatology*, 2014 (accepted).
- **K.-J. Kim**, and S.-B. Cho, “Meta-Classifiers for High-Dimensional, Small Sample Classification for Gene Expression Analysis,” *Pattern Analysis and Applications*, 2014 (accepted).
- D.-M. Yoon, and **K.-J. Kim**, “Interactive Evolution of 3D Models based on Direct Encoding for Video Game,” *ACM Computers in Entertainment*, 2014.
- H.-C. Cho, H.-S. Park, C.-Y. Kim and **K.-J. Kim**, “Investigation of the effect of “Fog of war” in the prediction of StarCraft strategy using machine learning,” *ACM Computers in Entertainment*, 2014.
- **K.-J. Kim**, and S.-B. Cho, “Game AI competitions: An open platform for computational intelligence education,” *IEEE Computational Intelligence Magazine*, August 2013.
- J.-G. Park, and **K.-J. Kim**, “Design of a visual perception model with edge-adaptive Gabor filter and support vector machine for traffic sign detection,” *Expert Systems with Applications*, vol. 40, pp. 3679-3687, 2013.
- T.-S. Kim, J.-C. Na and **K.-J. Kim**, “Optimization of autonomous car controller using self-adaptive evolutionary strategy,” *International Journal of Advanced Robotic Systems*, DOI: 10.5772/50848, 2012
- **K.-J. Kim**, J.-H. Seo, J.-G. Park and J.-C. Na, “Generalization of TORCS car racing controllers with artificial neural networks and linear regression analysis,” *Neurocomputing*, vol. 88, pp. 87-99, 2012
- **K.-J. Kim** and S.-B. Cho, “Automated synthesis of multiple analog circuits using evolutionary computation for redundancy-based fault-tolerance,” *Applied Soft Computing*, vol. 12, no. 4, pp. 1309-1321, 2012.
- **K.-J. Kim** and S.-B. Cho, “The 2011 IEEE conference on computational intelligence and games report,” *IEEE Computational Intelligence Magazine*, pp. 15-18, Feb 2012.
- **K.-J. Kim**, and S.-B. Cho, “Evolutionary neural networks for practical applications,” *Journal of Intelligent and Fuzzy Systems*, vol. 22, pp. 53-55, 2011.

- **K.-J. Kim**, J.-G. Park, and S.-B. Cho, "Correlation analysis and performance evaluation of distance measures for evolutionary neural networks," *Journal of Intelligent and Fuzzy Systems*, vol. 22, pp. 83-92, 2011.
- **K.-J. Kim**, A. Wang, and H. Lipson "Automated synthesis of resilient and tamper-evident analog circuits without a single point of failure," *Genetic Programming and Evolvable Machines*, vol. 11, no. 1, pp. 35-59, 2010.
- **K.-J. Kim** and S.-B. Cho, "Evolutionary ensemble of diverse artificial neural networks using speciation," *Neurocomputing*, vol. 71, no. 7-9, pp. 1604-1618, 2008.
- **K.-J. Kim** and S.-B. Cho, "An evolutionary algorithm approach to optimal ensemble classifiers for DNA microarray data analysis," *IEEE Transactions on Evolutionary Computation*, vol. 12, no. 3, pp. 377-388, 2008.
- **K.-J. Kim**, M.-C. Jung, and S.-B. Cho, "KeyGraph-based chance discovery for mobile contents management system," *International Journal of Knowledge-based Intelligent Engineering Systems*, vol. 11, no. 5, pp. 313-320, 2007.
- S.-B. Cho, **K.-J. Kim**, K.-S. Hwang, and I.-J. Song, "AniDiary: Summarizing user's daily life in cartoon-style diary with Bayesian networks," *IEEE Pervasive Computing*, vol. 6, no. 3, pp. 66-75, July-Sep, 2007.
- **K.-J. Kim** and S.-B. Cho, "Personalized mining of web documents using link structures and fuzzy concept networks," *Applied Soft Computing*, vol. 7, no. 1, pp. 398-410, Jan 2007.
- **K.-J. Kim** and S.-B. Cho, "A unified architecture for agent behaviors with selection of evolved neural network modules," *Applied Intelligence*, vol. 25, no. 3, pp. 253-268, Dec 2006.
- **K.-J. Kim** and S.-B. Cho, "Ensemble classifiers based on correlation analysis for DNA microarray classification," *Neurocomputing*, vol. 70, no. 1-3, pp. 187-199, Dec 2006.
- **K.-J. Kim** and S.-B. Cho, "Evolved neural networks based on cellular automata for sensory-motor controller," *Neurocomputing*, vol. 69, no. 16-18, pp. 2193-2207, Oct 2006.
- **K.-J. Kim** and S.-B. Cho, "A comprehensive overview of the applications of artificial life," *Artificial Life*, vol. 12, no. 1, pp. 153-182, Jan 2006.
- **K.-J. Kim** and S.-B. Cho, "Systematically incorporating domain-specific knowledge into evolutionary speciated checkers players," *IEEE Transactions on Evolutionary Computation*, vol. 9, no. 6, pp. 615-627, Dec 2005.
- **K.-J. Kim** and S.-B. Cho, "Prediction of colon cancer using evolutionary neural network," *Neurocomputing*, vol. 61, pp. 361-379, Oct 2004.
- **K.-J. Kim** and S.-B. Cho, "Fuzzy integration of structure adaptive SOM's for web content mining," *Fuzzy Sets and Systems*, vol. 148, no. 1, pp. 43-60, Nov 2004.

5.2. International Conference

- H.-S. Park, and **K.-J. Kim**, "Social Network Analysis of High-Level Players in Multiplayer Online Battle Arena Game," *The First Exploration on Games and Gamers Workshop @ SocInfo*, 2014.

- S. S. Farooq, H.-S. Park, and **K.-J. Kim**, “Inference of Opponent's Uncertain States in Ghost Game using Machine Learning,” *The 18th Asia Pacific Symposium on Intelligent and Evolutionary Systems*, 2014.
- H.-T. Kim, D.-M. Yoon and **K.-J. Kim**, “Solving Geometry Friends using Monte-Carlo Tree Search with Directed Graph Representation,” *IEEE Conference on Computational Intelligence and Games*, 2014.
- I.-S. Oh, H.-C. Cho and **K.-J. Kim**, “Imitation Learning for Combat System in RTS Games with Application to StarCraft,” *IEEE Conference on Computational Intelligence and Games*, 2014.
- H.-S. Park and **K.-J. Kim**, “Learning to Play Fighting Game using Massive Play Data,” *IEEE Conference on Computational Intelligence and Games*, 2014.
- H.-T. Kim, and **K.-J. Kim**, “Learning to Recommend Game Contents for Real-Time Strategy Gamers,” *IEEE Conference on Computational Intelligence and Games*, 2014.
- S.-S. Farooq, and **K.-J. Kim**, “Evolution of Neural Controllers for Simulated and Real Quadruped Robots,” *The Second International Conference on Robot, Vision and Signal Processing*, 2013.
- D.-M. Yoon, and **K.-J. Kim**, “Interactive Evolution of 3D Models based on Direct Manipulation for Video Games,” *17th Asia Pacific Symposium of Intelligent and Evolutionary Systems*, 2013.
- H.-S. Park, and **K.-J. Kim**, “The Automated Fault-Recovery for Four-Legged Robots using Parallel Genetic Algorithm,” *17th Asia Pacific Symposium of Intelligent and Evolutionary Systems*, 2013.
- H.-T. Kim and **K.-J. Kim**, “Hybrid of Rule-based Systems Using Genetic Algorithm to Improve Platform Game Performance,” *17th Asia Pacific Symposium of Intelligent and Evolutionary Systems*, 2013.
- J.-E. Lee, H.-S. Park, **K.-J. Kim** and J.-C. No, “Learning to Predict the Need of Summarization on News Articles,” *17th Asia Pacific Symposium of Intelligent and Evolutionary Systems*, 2013.
- H.-C. Cho, and **K.-J. Kim**, “Comparison of human and AI bots in StarCraft with replay data mining,” *IEEE Conference on Computational Intelligence in Games*, 2013.
- H.-C. Cho, **K.-J. Kim** and S.-B. Cho, “Replay-based strategy prediction and build order adaptation for StarCraft AI bots,” *IEEE Conference on Computational Intelligence in Games*, 2013.
- H.-S. Park, and **K.-J. Kim**, “Opponents modeling with incremental active learning: A case study of iterative prisoner's dilemma,” *IEEE Conference on Computational Intelligence in Games*, 2013
- **K.-J. Kim**, K.-Y. Eo, Y.-R. Jung, S.-O. Kim, and S.-B. Cho, “Evolutionary conditions for the emergence of robotic theory of mind with multiple goals,” *IEEE Workshop on Robotic Intelligence in Informationally Structured Space (RiiSS)*, pp. 48-54, 2013.
- D.-M. Yoon, and **K.-J. Kim**, “3D game model and texture generation using interactive genetic algorithm,” *Workshop at SIGGRAPH ASIA (Computer Gaming Track)*, pp. 53-58, 2012.
- H.-S. Park, H.-C. Cho, K.-Y. Lee, and **K.-J. Kim**, “Prediction of early stage opponent strategy for StarCraft AI using scouting and machine learning,” *Workshop at SIGGRAPH ASIA (Computer Gaming Track)*, pp. 7-12, 2012.
- H.-S. Park and **K.-J. Kim**, “Automatic python programming using stack-based genetic programming,” *Genetic and Evolutionary Computation Conference (GECCO)*, pp. 641-642, 2012.
- D.-M. Yoon and **K.-J. Kim**, “Comparison of scoring methods for interactive evolutionary computation based image retouching system,” *Genetic and Evolutionary Computation Conference (GECCO)*, pp. 617-618, 2012.

- H.-S. Park and **K.-J. Kim**, "Evolving a neural controller for fault-tolerant four-legged robots using parallel genetic algorithm," *International Conference on Advanced Information Technology and Sensor Application*, p. 129, 2012.
- J.-G. Park and **K.-J. Kim**, "A method for feature extraction of traffic sign detection and the system for real world scene," *IEEE International Conference on Emerging Signal Processing Applications*, pp. 13-16, 2012.
- **K.-J. Kim** and S.-B. Cho, "Server-Side early detection of StarCraft players with non-standard strategic behavior," *The 3rd International Conference on Internet (ICONI 2011)*, pp. 489-494, 2011.
- **K.-J. Kim** and S.-B. Cho, "Exploring features and classifiers to classify microRNA expression profiles of human cancer," *International Conference on Neural Information Processing*, pp. 234-241, 2010.
- J.-G. Park, and **K.-J. Kim**, "Dimension reduction by principal component analysis for evolutionary and back-propagation neural networks," *International Conference on Convergence & Hybrid Information Technology*, pp. 191-194, 2010.
- **K.-J. Kim**, and S.-B. Cho, "Experience on running a small-size simulated car racing tournament in an introductory programming course," *International Conference on Convergence & Hybrid Information Technology*, pp. 200-206, 2010.
- J.-H. Seo, J.-G. Park, J.-H. Lee, and **K.-J. Kim**, "Designing robust robotic car controllers based on artificial neural network," *International Conference on Convergence & Hybrid Information Technology*, pp. 183-190, 2010.
- T. W. Cornforth, **K.-J. Kim** and H. Lipson, "Evolution of equivalent analog circuits for biological neurons," *9th International Conference on Evolvable Systems – From Biology to Hardware*, pp. 157-168, 2010.
- **K.-J. Kim** and S.-B. Cho, "Evaluation of distance measures for speciated evolutionary neural networks in pattern classification problem," *International Conference on Neural Information Processing*, pp. 630-637, 2009.
- **K.-J. Kim** and H. Lipson, "Towards a simple robotic theory of mind," *Performance Metrics for Intelligent Systems Workshop*, pp. 131-138, 2009.
- **K.-J. Kim**, and S.-B. Cho, "Combining multiple evolved analog circuits for robust evolvable hardware," *International Conference on Intelligent Data Engineering and Automated Learning*, pp. 359-367, 2009.
- **K.-J. Kim**, and H. Lipson, "Towards a "Theory of Mind" in simulated robots," *Genetic and Evolutionary Computation Conference (GECCO)-Late Braking Papers*, pp. 2071-2076, 2009.
- **K.-J. Kim** and S.-B. Cho, "Ensemble approaches in evolutionary game strategies: A case study in Othello," *IEEE Symposium on Computational Intelligence and Games*, pp. 212-219, 2008.
- **K.-J. Kim** and S.-B. Cho, "Diverse evolutionary neural networks based on information theory," *International Conference on Neural Information Processing*, pp. 1007-1016, 2008.
- **K.-J. Kim** and S.-B. Cho, "Integrated model for informal inference based on neural networks," *International Conference on Neural Information Processing*, pp. 950-959, 2008.
- **K.-J. Kim**, H.-J. Choi and S.-B. Cho, "Hybrid of evolution and reinforcement learning for Othello players," *IEEE Symposium on Computational Intelligence and Games*, pp. 203-209, 2007.

- S.-B. Cho, **K.-J. Kim** and K.-S. Hwang, "Generating cartoon-style summary of daily life with multimedia mobile devices," *The 20th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems*, pp. 135-144, 2007.
- **K.-J. Kim**, M.-C. Jung and S.-B. Cho, "Episodic memory for ubiquitous multimedia contents management system," *The 20th International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems*, pp. 796-805, 2007.
- **K.-J. Kim** and S.-B. Cho, "Evolutionary Othello players boosted by opening knowledge," *Congress on Evolutionary Computation*, pp. 984-991, 2006.
- **K.-J. Kim** and S.-B. Cho, "Evolutionary aggregation and refinement of Bayesian networks," *Congress on Evolutionary Computation*, pp. 1513-1520, 2006.
- B.-Y. Choi, **K.-J. Kim**, and S.-B. Cho, "The embodiment of autonomic computing in the middleware for distributed system with Bayesian networks," *International Conference on Intelligent Computing*, pp. 1047-1052, 2006.
- **K.-J. Kim**, and S.-B. Cho, "Ensemble evolution of checkers players with knowledge of opening, middle and endgame," *9th Pacific Rim International Conference on Artificial Intelligence*, pp. 950-954, 2006.
- **K.-J. Kim**, J.-O. Yoo, and S.-B. Cho, "Robust inference of Bayesian networks using speciated evolution and ensemble," *15th International Symposium on Methodologies for Intelligent Systems*, pp. 92-101, Saratoga Springs, USA, 2005.
- **K.-J. Kim**, S.-H. Yoo and S.-B. Cho, "Bayesian validation of fuzzy clustering for analysis of Yeast Cell Cycle data," *9th International Conference on Knowledge-based Intelligent Information & Engineering Systems*, pp. 777-784, Melbourne, Australia, 2005.
- **K.-J. Kim** and S.-B. Cho, "DNA Gene expression classification with ensemble classifiers optimized by speciated genetic algorithm," *First International Conference on Pattern Recognition and Machine Intelligence (PReMI'05)*, pp. 649-653, 2005.
- **K.-J. Kim** and S.-B. Cho, "Construction of Bayesian networks for context-aware service robot," *The 2nd International Conference on Ubiquitous Robots and Ambient Intelligence*, pp. 69, 2005.
- **K.-J. Kim** and S.-B. Cho, "Applications of diverse evolutionary neural networks based on information theory," *Industrial Mathematics Initiative*, 2005.
- S.-J. Han, **K.-J. Kim**, and S.-B. Cho, "Evolutionary learning program's behavior in neural networks for anomaly detection," *International Conference on Neural Information Processing*, pp. 236-241, India, 2004.
- **K.-J. Kim** and S.-B. Cho, "Informal inference based on the integration of multiple neural networks," *Sixth China-India-Japan-Korea Joint Workshop on Neurobiology and Neuroinformatics*, India, 2004.
- **K.-J. Kim** and S.-B. Cho, "Fusion of structure adaptive self-organizing maps using fuzzy integral," *International Joint Conference on Neural Networks*, pp. 28-33, 2003.
- H.-J. Min, **K.-J. Kim** and S.-B. Cho, "Generating optimal behaviors of mobile robot using behavior network with planning capability," *IEEE International Symposium on Computational Intelligence in Robotics and Automation*, pp. 186-191, 2003.
- **K.-J. Kim** and S.-B. Cho, "Behavior selection architecture for tangible agent," *IEEE International Symposium on Computational Intelligence in Robotics and Automation*, pp. 175-180, 2003.

- **K.-J. Kim** and S.-B. Cho, "BN+BN: Behavior network with Bayesian network for intelligent agent," *The 16th Australian Joint Conference on Artificial Intelligence*, pp. 979-991, 2003.
- **K.-J. Kim** and S.-B. Cho, "Evolving artificial neural networks for DNA microarray analysis," *Congress on Evolutionary Computation*, pp. 2370-2377, 2003.
- **K.-J. Kim** and S.-B. Cho, "Evolving speciated checker players with crowding algorithm," *Congress on Evolutionary Computation*, vol. 1, pp. 407-412, Hawaii, USA, May 2002.
- **K.-J. Kim** and S.-B. Cho, "Checkers strategy evolution with speciated neural networks," *Pacific Rim International Conference on Artificial Intelligence 2002*, pp. 599, 2002.
- **K.-J. Kim** and S.-B. Cho, "Robot action selection for higher behaviors with CAM-Brain modules," *International Symposium on Robotics 2001*, pp. 1623-1628, Seoul, Korea, 2001.
- **K.-J. Kim** and S.-B. Cho, "Coordination of multiple behavior modules evolved on CAM-Brain," *Congress on Evolutionary Computation 2001*, vol. 2, pp. 1414-1421, Seoul, Korea, 2001.
- **K.-J. Kim** and S.-B. Cho, "A personalized web search engine using fuzzy concept network with link structure," *Joint 9th IFSA World Congress and 20th NAFIPS International Conference*, vol. 1, pp. 81-86, Vancouver, Canada, 2001.
- **K.-J. Kim** and S.-B. Cho, "Dynamic selection of evolved neural controllers for higher behaviors of mobile robot," *IEEE International Symposium on Computational Intelligence in Robotics Automation 2001*, pp. 467-472, Banff, Canada, 2001.
- **K.-J. Kim** and S.-B. Cho, "Conceptual information extraction with link-based search," *Web Intelligence 2001*, pp. 367-372, Maebashi, Japan, Oct, 2001.
- **K.-J. Kim** and S.-B. Cho, "Integration of multiple neural networks evolved on cellular automata by action selection mechanism," *7th International Conference on Neural Information Processing*, Vol. 2, pp. 687-692, November, Taejeon, Korea, 2000.

6. Awards

- 3rd Rank (Joo Seon Lee, Hyun Su Seon, and Jeong Hyeon Kim), Angry Birds AI Competition, ECAI 2014.
- 2nd Rank (Kyoung-Jun Ahn), Fighting Game AI Competition, IEEE CIG 2014.
- 1st Rank (Hyun-Tae Kim, and Du-Mim Yoon), Geometry Friends AI Competition, IEEE CIG, 2014.
- 1st Rank (Hyun-Tae Kim, and Du-Mim Yoon), Student Video Competition, IEEE CIG, 2014
- 2nd Rank (Kyoung-Jun Ahn), Fighting Game AI Competition, 2013.
- 3rd Rank, Student Video Competition, IEEE CIG, 2013.
- Finalists (Du-Mim Yoon), Angry Birds AI Competition, IJCAI, 2013.
- 3rd Rank, StarCraft AI competition (Ho-Chul Cho), IEEE CIG, 2011.
- Great Minds of the 21st Century 2007/2008 Edition (American Biographical Institute)
- Good paper award from Graduate School of Yonsei University (Applied Science), May 2007.
- Good presentation award from Korea Information Science Society, "Development of mobile life browser based on concept network," 2006.

- Winner of Othello program competition at WCCI 2006 (World Congress on Computational Intelligence) <http://algoval.essex.ac.uk:8080/othello/html/CEC2006Results.html>
- WCCI 2006 (World Congress on Computational Intelligence) Best Session Presentation Award, Evolutionary Computation and Games II, Title "Evolutionary Othello players boosted by opening knowledge"
- Student Travel Grant Recipient, Congress on Evolutionary Computation 2002, (5 days in Hilton Hawaiian Hotel and Reservation Fee of Conference)

7. Grants

- Mid-Career Researcher Program – Core Research, "Research on Computational Intelligence Techniques for Adaptive Video Games," (PI, June 2013 ~ May 2016)
- Brain Science Program, "Modeling and Predicting User's Intention inspired by Human Theory of Mind," (PI, May 2013 ~ April 2015)
- General Researcher Support Program – Basic Research, "Research on Machine Learning Techniques to Design Passive/Active Fault-Tolerant Robot Systems," (PI, May 2010 ~ April 2013).
- Korea Research Foundation Postdoctoral Fellowship, "Design Automation for Real-World Systems Using Speciated Evolution," (PI, August 2007 ~ July 2008).

8. Talks

- "Game AI and Data Mining" Korea Telecom IT Convergence Center 2014.
- "Computational Intelligence and Games in Practice" Tutorial at WCCI 2012.
- "Automated Synthesis of Resilient and Tamper-Evident Analog Circuits without a Single Point of Failure," Symposium on Brain and Artificial Intelligence, Jan 2012.
- "Robot Intelligence – Research Trend" Winter School of Society for Computational Neuroscience, Jan 2011.
- "Artificial Intelligence: Synthesis of Intelligence" Korea Institute of R&DB Human Resources Development, August 2010
- "Entertainment Computing: Games and Artificial Intelligence," Korea Congress on Computer, July 2010
- "Practical Tools for Bayesian Networks and Applications to Robotics," Talks at ETRI, April 2010.
- "Robot Intelligence", Tutorial at Korea HCI 2010, Jan 2010.
- "Theory of Mind: A robotics perspective," ILVB (Intelligence-Language-Vision-Bioinformatics) 2009, Jeju,

Korea, July 2009.

- "Learning Other's Self Models for Robot," General Motors R&D Center, Michigan, USA, May 2008.
- "Theory of Mind (ToM) for Robots: Preliminary Results," Dynamics, Systems and Control Seminar Series, Department of Mechanical and Aerospace Engineering, Cornell University, USA, 2008.
- "Evolutionary Computation for Games," Tutorial at Joint Symposium on Computational Intelligence (Annual meeting of the IEEE Computational Intelligence Society Korea Chapter), Seoul, Korea, May 2007.

9. Academic Service

2010~Now	Member	IEEE CIS Society Games Technical Committee
2011~Now	Member	IEEE CIS Society Education Technical Committee "Student Games-based Competition" Subcommittee
2013~Now	Member	IEEE CIS ISATC (Intelligent Systems Applications Technical Committee) "Robotics Task Force"
2014~Now	Vice Chair	IEEE CIS Real Time Strategy Game Task Force @ Games TC
2014~2016	Editorial Board Member	Journal of Experimental & Theoretical Artificial Intelligence
2014	Guest Editor	Scientific World Journal Special Issue on "Recent Advancements in Intelligent Techniques for Games"
2014	Special Session Chair	"Mobile Entertainment Computing" Session @ The 18 th Asia Pacific Symposium on Intelligent and Evolutionary Systems
2014	Organizer	IEEE CIG 2014 StarCraft AI Competition
2014	Special Session Chair	"Computational Intelligence and Games" @ WCCI 2014
2013	Guest Editor	Special Issue on "Intelligence and Security for Games" Communications of the Korean Institute of Information Scientists and Engineers
2013	Program Co-Chair	The 17 th Asia Pacific Symposium on Intelligent and Evolutionary Systems
2012	Publicity Chair	Int. Conf. on Computational Systems-Biology and Bioinformatics
2012	Session Chair	Workshop at SIGGRAPH ASIA "Gaming Track" – Game Intelligence Session
2011	Special Sessions Chair	Int. Conf. on Computational Systems-Biology and Bioinformatics
2011	Local Arrangement Chair	IEEE Conference on Computational Intelligence in Games
2011	Workshop Organizer	"Game Intelligence" Workshop at Korea HCI 2011
2010	Session Chair	ICONIP 2010, Machine Learning Applications to Image Analysis
2010	Local Arrangement Chair	ICHIT, AI Workshop at Korea
2010	Special Sessions Chair	Int. Conf. on Computational Systems-Biology and Bioinformatics
2010	Guest Editor	Journal of Intelligent & Fuzzy Systems

2010	Session Chair	Korea Congress on Computer, Artificial Intelligence Session
2009	Special Session Organizer	Evolutionary Neural Network Session at ICONIP 2009