CURRICULUM VITA

Kwang Y. Lee

ADDRESS:

Department of Electrical & Computer Engineering Phone: (254) 710-4817 Baylor University Fax: (254) 710-3010

One Bear Place #97356 E-mail: <u>Kwang Y_Lee@baylor.edu</u>
Waco, TX 76798 <u>http://www.ecs.baylor.edu/ece/</u>

EDUCATION:

Ph.D. System Science
Michigan State University
M.S. Electrical Engineering
B.S. Electrical Engineering
1968 North Dakota State University
B.S. Seoul National University

Ph.D. Thesis: "Optimal Sampled-Data Control of Distributed Parameter Systems"

Advisor: Robert O. Barr

PROFESSIONAL EXPERIENCE:

8/07-Present	Baylor University	Professor & Chairman
8/07-Present	The Pennsylvania State University	Professor Emeritus
8/92-8/07	The Pennsylvania State University	Professor
8/86-8/92	The Pennsylvania State University	Associate Professor
9/76-8/86	University of Houston	Associate Professor
Su of 1976	Bonneville Power Administration	Electrical Engineer
9/75-8/76	Oregon State University	Assistant Professor
9/73-8/75	Michigan State University	Assistant Professor
12/71-8/73	Michigan State University	Research Associate
Su of 68, 69	Lockheed Ship Building and Construction	Electrical Engineer
5/66-8/67	Han Young Industrial Co.	Electrical Engineer
4/64-4/66	The Army Signal School	Instructor

RESEARCH INTERESTS:

Artificial intelligence, computational intelligence and multi-agent systems, and their applications to power & energy systems. Control, operation, and planning of power systems with renewable energy sources. Modeling, simulation and control of fossil-fuel, hydro and nuclear power plants and renewable energy sources, distributed generation, energy storage systems, V2G & G2V electric vehicles, and micro-grid.

PROFESSIONAL SOCIETY ACTIVITIES:

Fellow of IEEE

Editor, IEEE Transactions on Energy Conversion

Associate Editor, IEEE Transactions on Neural Networks

Associate Editor, IFAC Journal on Control Engineering Practice

Chair of IFAC Technical Committee 6.3 on Power and Energy Systems

Chair of IFAC Workshop on Control of Smart Grid and Renewable Energy Systems (CSGRES 2019), Jeju Island, Korea, June 2019

Chair of IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 2018

Chair of IFAC Workshop on Control of Transmission and Distribution Smart Grids (CTDSG 2016), Prague, Czech Republic, October 2016

Chair of IFAC Symposium on Control of Power and Energy Systems (CPES 2015), New Delhi, India, December 2015

Editor and Member of International Program Committee of IFAC Symposium on Power Systems and Power Plant Control (PSPPC 2003), Seoul, Korea, September 15-18, 2003

Tutorial Organizer on IFAC Tutorial on Evolutionary Computation Techniques for Power System Optimization, PSPPC 2003, Seoul, Korea, September 15-18, 2003

Member of International Program Committee of IFAC Symposium on Power Systems and Power Plant Control (PSPPC 1989), Seoul, Korea, August 22-25, 1989

Chair of the IEEE PES Working Group & Task Force on Modern Heuristic Optimization Methods

Member of IEEE Control Systems Society (CSS), Power and Energy Society (PES), Computational Intelligence Society (CIS)

Member of IEEE CSS Technical Committee on Smart Grid; Technical Committee on Power Generation

Tutorial Lecturer on Control of Power System and the Use of Neurocontrollers, IEEE PES Tutorial on Artificial Neural Networks, 1996

Tutorial Lecturer on Fuzzy Set Applications in Power Systems at the IEEE PES 1997 PICA Conference; IEEE PES 2000 Winter & Summer Meetings

Tutorial Organizer on IEEE Power Engineering Society Tutorial on Modern Heuristic Optimization Techniques with Applications to Power Systems, 2002 & 2003

Panelist on Multi-Agent Systems (MAS) in Power Engineering, IEEE Power Engineering Society General Meeting, San Francisco, CA, June 12-16, 2005

Panelist on Practical Applications of Intelligent Methods to Energy Conversion and Power Delivery Systems, IEEE PES Winter Meeting, New York, NY, Jan.29-Feb.2, 1995

Member of Board of Directors, the International Conference on Intelligent System Application to Power Systems (ISAP)

Chairman of Technical Program Committee of ISAP 1997, Seoul, Korea, July 1997

Vice-Chairman of Technical Program Committee of ISAP 1999, Rio, Brazil, April 1999

Chairman of Technical Program Committee of ISAP 2005, Washington, DC, November 2005

Member of International Advisory Committee of International Conference on Power System Technology (ICPST' 94), Beijing, China, Oct. 18-21, 1994, and NSF Coordinator for U.S. Delegates

Coordinator and Co-chairman of NSF Sponsored U.S.-Korea International Workshop on Expert Systems for Electric Power Systems, Seoul, Korea, August 16-18, 1989

SUMMARY OF RESEARCH ACTIVITIES:

Supervised over 107 graduate students (31 Ph.D., 76 MS), conducted over 30 sponsored research projects, and published over 620 publications in refereed journals, conferences, book and book chapters. Managed over 31 research projects funded by external funding agencies including NSF, DOE, EPRI, Navy, Bonneville Power Administration, Houston Power & Light Company, Allegheny Power System, Doosan Heavy Industry & Construction Company, Korea Institute of Energy Technology Evaluation and Planning (KIETEP).

PUBLICATIONS:

1. Refereed Journal Articles

Lee, K. Y., S. N. Chow and R. O. Barr, "On the Control of Discrete-Time Distributed Parameter Systems," <u>SIAM Journal on Control</u>, Vol. 10, No. 2, pp. 361-376, May 1972. Lee, K. Y. and R. O. Barr, "Sampled-Data Optimization in Distributed Parameter System," <u>IEEE</u> 1.

Transactions on Automatic Control, Vol. AC-17, No. 6, pp. 806-809, December 1972.

Park, J. G. and K. Y. Lee, "An Inverse Optimal Control Problem and Its Application to the Choice of Performance Index for Economic Stabilization Policy," <u>IEEE Transactions on Systems, Man and Cybernetics</u>, Vol. SMC-5, No. 1, pp. 64-76, January 1975.

Lee, K. Y., R. O. Barr, S. H. Gage and A. N. Kharkar, "Formulation of a Mathematical Model for Insect Pest Control - the Cereal Leaf Beetle Problem," <u>Journal of Theoretical Biology</u>, Vol. 59, pp.

- Tacker, E. C., K. Y. Lee, T. D. Linton and C. W. Sanders, "The University of Houston Electric 5. Energy Systems Control Program," IEEE Transactions on Education, Vol. E-21, No. 3, pp. 197-202, August 1978.
- Taylor, C. W., K. Y. Lee and D. P. Dave, "Automatic Generation Control Analysis with Governor Deadband Effects," <u>IEEE Transactions on Power Apparatus and Systems</u>, Vol. PAS-98, pp. 2030-6. 2036, Nov./Dec. 1979.
- Lee, K. Y. and S. A. Hossain, "A Real-Time Predictive Controller for Automatic Voltage Regulation of a Synchronous Generator," <u>Int. Journal of Electrical Power and Energy Systems</u>, Vol. 7.

Regulation of a Synchronous Generator, Int. Journal of Electrical Power and Energy Systems, Vol. 1, No. 3, pp. 181-186, October 1979.

Trefny, F. J. and K. Y. Lee, "Economic Fuel Dispatch," IEEE Transactions on Power Apparatus and Systems, Vol. PAS-100, pp. 3468-3477, July/August 1981.

Lee, K. Y. and M. Belbachir, "A Decentralized Plant Controller for Automatic Generation and Voltage Regulation," J. Electric Power Systems Research, Vol. 5, pp. 41-51, 1982.

Meyer, F. J. and K. Y. Lee, "Improved Dynamic Load Model for Power System Stability Studies," IEEE Transactions on Power Apparatus and Systems, Vol. PAS-101, pp. 3303-3309, September 1982.

11. Lee, K. Y. and F. J. Meyer, "Dynamic Power System Load Modeling by Parameter Estimation," J.

- Electric Power Systems Research, Vol. 7, pp. 231-241, 1984.

 12. Lee, K. Y., Y. M. Park and J. L. Ortiz, "Fuel Cost Minimization for Both Real and Reactive Power Dispatches," IEE Proceedings (London), Vol. 131, Pt. C, pp. 85-93, 1984. Park, Y. M. and K. Y. Lee, "Optimal Decentralized Load-Frequency Control," J. Electric Power Systems Research, Vol. 7, pp. 279-288, 1984.
- 14. Park, Y. M., K. Y. Lee and L.T.O. Youn, "Optimization Technique for Long-Range Generation Expansion Planning Using Maximum Principle and Gaussian Distribution Function," J. Electric Power Systems Research, Vol. 7, pp. 191-200, 1984.

 15. Lee, K. Y., Y. M. Park and J. L. Ortiz, "An Optimal Real and Reactive Power Dispatch," <u>J. Electric</u>

- Power Systems Research, Vol. 7, pp. 201-212, 1984.
 Lee, K. Y., Y. M. Park and J. L. Ortiz, "A United Approach to Optimal Real and Reactive Power Dispatch," <u>IEEE Transaction on Power Apparatus and Systems</u>, Vol. PAS-104, pp. 1147-1153, May 1985.
- Park, Y. M., K. Y. Lee and L.T.O. Youn, "New Analytical Approach for Long-Term Generation Expansion Planning Based on Maximum Principle and Gaussian Distribution Function," <u>IEEE Transaction on Power Apparatus and Systems</u>, Vol. PAS-l04, pp. 390-398, February 1985.
 Lee, K. Y., J. L. Ortiz, Y. M. Park and L. G. Pond, "An Optimization Technique for Reactive Power Planning of Subtransmission Network Under Normal Operation," <u>IEEE Transactions on Power</u>

Systems, Vol. PWRS-l, pp. 153-159, May 1986.

19. Youn, L.T.O., K. Y. Lee and Y. M. Park, "Optimal Long-Range Generation Expansion Planning for Hydro-Thermal System Based on Analytical Production Costing Model," <u>IEEE Transactions on Power Systems</u>, Vol. PWRS-2, pp. 278-286, May 1987.

20. Shiva, R., K. Y. Lee and J. A. Parker, "Parameter Estimation of Macroeconomic Systems Under Rational Expectations," International Journal of Systems Science, Vol. 18, pp. 1121-1137, 1987.

21. Lee, B. Y., Y. M. Park and K. Y. Lee, "Optimal Generation Planning for Thermal System with Pumped-Storage Based on Analytical Production Costing Model," IEEE Transactions on Power Systems, Vol. PWRS-2, pp. 486-493, May 1987.

22. Lee, K. Y. and S. A. Hossain, "Distributed Systems Approach to the Identification of Flexible Structures", Journal of Guidance, Control and Dynamics, Vol. 10, pp. 540-548, November-

December 1987.

Lee, K. Y., J. L. Ortiz, M. A. Mohtadi and Y. M. Park, "Optimal Operation of Large-Scale Power Systems," <u>IEEE Transactions on Power Systems</u>, Vol. 3, pp. 413-420, May 1988.
 Kim, K. J., Y. M. Park and K. Y. Lee, "Optimal Long-Term Transmission Expansion Planning Based on Maximum Principle," <u>IEEE Transactions on Power Systems</u>, Vol. 3, pp. 1494-1501,

November 1988.

25. Edwards, R. M., K. Y. Lee and M. A. Schultz, "Optimal Control of Reactor Temperatures Using Reactivity," Transactions of American Nuclear Society, Vol. 61, pp. 287-288, June 1990.

27. Edwards, R. M., K. Y. Lee and M. A. Schultz, "State Feedback Assisted Classical Control: An Incremental Approach to Control Modernization of Existing and Future Nuclear Reactors and

Power Plants," Nuclear Technology, Vol. 92, pp. 167-183, November 1990.

28. Park, J. H., Y. M. Park and K. Y. Lee, "Composite Modeling for Adaptive Short-Term Load Forecasting," IEEE Transactions on Power Systems, Vol. 6, pp. 450-457, May 1991.

29. Lee, B. H. and K. Y. Lee, "A Study on Voltage Collapse Mechanism in Electric Power Systems,"

- IEEE Transactions on Power Systems, Vol. 6, pp. 966-974, August 1991.
 30. Edwards, R. M., K. Y. Lee and A. Ray, "Multi-Layer Robust control for Operational Safety Improvement," <u>Transactions of the American Nuclear Society</u>, Vol. 63, pp. 402-403, June 1991.
 31. Lee, K. Y., C. C. Ku and R. M. Edwards, "A Neural Network for Adapting Nuclear Power Plant
- Control for Wide Range Operation," Transactions of the American Nuclear Society, Vol. 63, pp.

- Control for Wide Range Operation, <u>Haisactions of the American Nuclear Society</u>, vol. 63, pp. 114-115, June 1991.
 Lee, K. Y., Y. T. Cha and J. H. Park, "Short-Term Load Forecasting Using an Artificial Neural Network," <u>IEEE Transactions on Power Systems</u>, Vol. 7, No. 1, pp. 124-132, February 1992.
 Edwards, R. M., K. Y. Lee and A. Ray, "Robust Fault-Accommodating Control of Nuclear Reactors and Power Plants," <u>Nuclear Technology</u>, Vol. 98, pp. 137-148, May 1992.
 Edwards, R. M., J. A. Turso, K. Y. Lee, H. E. Garcia and A. Ray, "The Penn State Intelligent Distributed Control Research Laboratory," <u>IEEE Transactions on Energy Conversion</u>, Vol. 7, pp. 478-482. Soutember 1902. 478-482, September 1992.
- Edwards, R. M., H. E. Garcia and K. Y. Lee, "Experimental Development of Power Reactor Intelligent Control," <u>Transactions of the American Nuclear Society</u>, Vol. 66, pp. 373-374, November 1992.
- 36. Ramaswamy, P., R. M. Edwards, and K. Y. Lee, "Wide-Range Nuclear Reactor Temperature Control Using Automatically Tuned Fuzzy Logic Control," Transactions of the American Nuclear Society, Vol. 66, pp. 101-103, November 1992.

37. Ben-Abdennour, A., R. M. Edwards and K. Y. Lee, "LQG/LTR Robust Control of Nuclear Reactors with Improved Temperature Performance," IEEE Transactions on Nuclear Science, Vol. 39, No. 6,

pp. 2286-2295, December 1992.

- Ku, C.-C., K. Y. Lee and R. M. Edwards, "Improved Nuclear Reactor Temperature Control Using Diagonal Recurrent Neural Networks," <u>IEEE Transactions on Nuclear Science</u>, Vol. 39, No. 6, pp. 2298-2309, December 1992.
- 39. Mangoli, M. K., K. Y. Lee, and Y. M. Park, "Optimal Real and Reactive Power Control Using
- Linear Programming," <u>Electric Power Systems Research</u>, Vol. 26, pp. 1-10, 1993.

 40. Mangoli, M. K., K. Y. Lee and Y. M. Park, "Optimal Long Term Reactive Power Planning Using Decomposition Techniques," <u>Electric Power Systems Research</u>, Vol. 26, pp. 41-52, 1993.

 41. Lee, B. H. and K. Y. Lee, "Dynamic and Static Voltage Stability Enhancement of Power Systems,"

- <u>IEEE Transactions on Power Systems</u>, Vol. 8, No. 1, pp. 231-238, 1993.

 Ben-Abdennour, A., K. Y. Lee and R. M. Edwards, "Multivariable Robust Control of a Power Plant Deaerator," <u>IEEE Transactions on Energy Conversion</u>, Vol. 8, No. 1, pp. 123-129, 1993.

 Khaldi, M. R., A. K. Sarkar, K. Y. Lee, and Y. M. Park, "The Modal Performance Measure for Parameter Optimization of Power System Stabilizers," <u>IEEE Transactions on Energy Conversion</u>,
- Vol. 8, No. 4, pp. 660-666, December 1993.

 44. Ramaswamy, P., R. M. Edwards, and K. Y. Lee, "An Automatic Tuning Method of a Fuzzy Logic Controller for Nuclear Reactors," <u>IEEE Transactions on Nuclear Science</u>, Vol. 40, No. 4, pp. 1253-1262, August 1993.
- 45. Park, J. H., Y. S. Kim, I. K. Eom, and K. Y. Lee, "Economic Load Dispatch for Piecewise Quadratic Function Using Hopfield Neural Network," IEEE Transactions on Power Systems, Vol. 8, No. 3, pp. 1030-1038, August 1993.
- 46. Wu, Z., V. K. Varadan, V. V. Varadan, and K. Y. Lee, "Design and Development of Smart Acoustic Absorber Using Piezoelectric Sensors and Actuators and State-Space Control," Journal of Wave-Material Interaction, Vol. 9, No. 3, pp. 53-67, July 1994.
- 47. Ramaswamy, P., R. M. Edwards and K. Y. Lee, "Validating Real-time Implementations of Diagonal Recurrent Neural Network and Fuzzy Logic Controllers," Trans. Amer. Nucl. Soc., Vol. 71, pp. 364-365, November 1994.
- Ku, C. C. and K. Y. Lee, "Diagonal Recurrent Neural Network for Dynamic Systems Control," IEEE Transactions on Neural Networks, Vol. 6, pp. 144-156, January 1995.

49. Park, Y. M., U. C. Moon, and K. Y. Lee, "A Self-Organizing Fuzzy Logic Controller for Dynamic

Systems Using Fuzzy Auto-Regressive Moving Average (FARMA) Model," IEEE Transactions on

Fuzzy Systems, Vol. 3, No. 1, pp. 75-82, February 1995.

50. Wu, Z., K. Varadan, V. V. Varadan, and K. Y. Lee, "Active Absorption of Acoustic Wave Using State-Space Model and Optimal Control Theory," Journal of Acoustic Society of America, Vol. 97,

No. 2, pp. 1078-1087, February 1995.
Wu, Z., V. K. Varadan, V. V. Varadan, and K. Y. Lee, "A State-Space Modeling of One-Dimensional Active Noise Control Systems," Transactions of the ASME, Journal of Vibration and Acoustics, Vol. 117, No. 2, pp. 220-225, April 1995.
Lee, K. Y., X. Bai, and Y. M. Park, "Optimization Method for Reactive Power Planning Using a

Genetic Algorithm," IEEE Transactions on Power Systems, Vol. 10, No. 4, pp. 1843-1850,

November 1995.

53. Dimeo, R. and K. Y. Lee, "Boiler-Turbine Control System Design Using a Genetic Algorithm,"

IEEE Transactions on Energy Conversion, Vol. 10, No. 4, pp. 752-759, December 1995.

53. Ben-Abdennour, A. and K. Y. Lee, "A Decentralized Controller Design for a Power Plant Using Robust Local Controllers and Functional mapping," IEEE Transactions on Energy Conversion, Vol. 11, No. 2, pp. 394-400, June 1996.

Ben-Abdennour, A. and K. Y. Lee, "An Autonomous Control system for Boiler-Turbine Units,"

<u>IEEE Transactions on Energy Conversion</u>, Vol. 11, No. 2, pp. 401-406, June 1996. Park, Y. M., M. S. Choi, J. W. Lee, B. H. Kim, and K. Y. Lee, "An Auxiliary LQG/LTR Robust Controller Design for Cogeneration Plants," <u>IEEE Transactions on Energy Conversion</u>, Vol. 11, No. 2, pp. 407-413, June 1996. Park, Y. M., M. S. Choi, and K. Y. Lee, "A Neural Network-Based Power System Stabilizer Using

Power Floor Characteristics," IEEE Transactions on Energy Conversion, Vol. 11, No. 2, pp. 442-

448, June 1996.

- 57. Park, Y. M., U. C. Moon, and K. Y. Lee, "A Self-Organizing Power System Stabilizer Using Fuzzy Auto-Regressive Moving Average (FARMA) Model," IEEE Transactions on Energy Conversion, Vol. 11, No. 2, pp. 442-448, June 1996.
- 58. Park, Y. M., M. S. Choi, and K. Y. Lee, "An Optimal Tracking Neuro-Controller for Nonlinear Dynamic Systems," <u>IEEE Transactions on Neural Networks</u>, Vol. 7, No. 5, pp. 1099-1110, September 1996.
- 59. Zhao, Y., R. M. Edwards, and K. Y. Lee, "Hybrid Feedforward and Feedback Controller Design for Nuclear Steam Generators over Wide Range Operation Using Genetic Algorithm,"
- Transactions on Energy Conversion, Vol. 12, No. 1, pp. 100-106, March 1997.

 60. Lukas, M. D., H. Ghezelayagh, and K. Y. Lee, "An Interactive Distributed Simulator for Commercial Power Plant," <u>IEEE Transaction on Energy Conversion</u>, Vol. 12, No. 3, pp. 259-265, September 1997.
- 61. Park, Y. M., G.-W. Kim, H.-S. Choi, and K. Y. Lee, "A New Algorithm for Kohonen Layer Learning with Application to Power System Stability Analysis," <u>IEEE Transactions on Systems, Man, and Cybernetics</u>, Vol. 27, No. 6, pp. 1030-1033, December 1997.

62. Lee, K. Y., "Author's Reply and Revision for Time-Varying Weights," <u>IEEE Transactions on</u>

- Neural Networks, Vol. 8, No. 3, pp. 813-814, May 1997.

 63. Lee, K. Y. and F. F. Yang, "Optimal Reactive Power Planning Using Evolutionary Algorithms: A Comparative Study for Evolutionary Programming, Evolutionary Strategy, Genetic Algorithm, and Linear Programming," <u>IEEE Transactions on Power Systems</u>, Vol. 13, No. 1, pp. 101-108, February
- 64. Choi, M.-S., Y.-M. Park, and K. Y. Lee, "A Wide Ranging Operation Power System Stabilizer Design with Neural Networks using Power Flow Characteristics," Engineering Intelligent Systems, Vol. 6, No. 1, pp. 57-63, March 1996.

65. Lee, K. Y., A. Sode-Yome, and J. H. Park, "Adaptive Hopfield Neural Networks for Economic Load Dispatch," IEEE Transactions on Power Systems, Vol. 13, No. 2, pp. 519-526, May 1998.

Batzel, T. D. and K. Y. Lee, "Commutation Torque Ripple Minimization for Permanent Magnet Synchronous Machines with Hall Effect Position Feedback," <u>IEEE Transactions on Energy</u> <u>Conversion</u>, Vol. 13, No. 3, pp. 257-262, September 1998.

67. Park, Y. M., J. H. Lee, S. H. Hyun, and K. Y. Lee, "A Synchronous Generator Stabilizer based on Universal Model," <u>Electric Power & Energy Systems</u>, Vol. 20, pp. 435-442, 1998.

Crow, M. L., C. Singh, K. Olejniczak, K. Tomsovic, R. Christie, A. Pahwa, and K. Y. Lee, "Integrating Research into a Power Engineering Curriculum," IEEE Transactions on Power

Systems, Vol. 14, No. 2, pp. 404-441, May 1999.

Moon, U.-C., Y.-M. Park, and K. Y. Lee, "A Development of Power System Stabilizer With Fuzzy Auto-Regressive Moving average Model," Fuzzy Set and Systems, Vol. 102, pp. 95-101, 1999.

- 70. Lee, K. Y., R. M. Edwards, and T. Hiyama, "Combined Research and Curriculum Development for Power Plant Intelligent Control," IEEE Trans. on Energy Conversion, Vol. 14, No. 3, pp. 817-823, September 1999.
- 71. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "Development of a Stack Simulation Model for Control Study on Direct Reforming Molten Carbonate Fuel Cell Power Plant", IEEE Trans. on Energy Conversion, Vol. 14, No. 4, pp. 1651-1657, November 1999.
- 72. Park, J.-B., Y.-M. Park, J.-R. Won, and K. Y. Lee, "Economic Dispatch Solutions Using an Improved Genetic Algorithm based on the Multi-Stage Method and Directional Crossover," Engineering Intelligent
- Systems, Vol. 7, No. 4, pp. 219-225, December 1999.
 Ghezelayagh, H. and K. Y. Lee, "Neuro-Fuzzy Identifier of a Boiler System," Engineering Intelligent Systems, Vol. 7, No. 4, pp. 227-231, December 1999.

 74. Nam, H. K., Y. K. Kim, K. S. Shim, and K. Y. Lee, "A New Eigen-Sensitivity Theory of Augmented Matrix
- and Its Applications to Power System Stability Analysis,", IEEE Transactions on Power Systems, Vol. 15, No. 1, pp. 363-369, February 2000.
- 75. Lee, K. Y., M. Perakis, D. R. Sevcik, N. I. Santoso, G. K. Lausterer, and T. Samad, "Intelligent Distributed Simulation and Control of Power Plant," <u>IEEE Transactions on Energy Conversion</u>, Vol. 15, No. 1, pp. 116-123, March 2000.
- Park, Y. M., J. H. Lee, S. H. Hyun, and K. Y. Lee, "Design of a Power System Stabilizer Using a Universal Model-Based Controller," <u>Engineering Intelligent Systems</u>, Vol. 8, No. 1, pp. 31-38, March 2000. Batzel, T. D. and K. Y. Lee, "Rotor Angle Estimation for Permanent Magnet Synchronous Machines with
- Hall Effect Position Sensors using Neural Networks," Engineering Intelligent Systems, Vol. 8, No. 1, pp. 59-66, March 2000.
- Lee, K. Y., F. M. Nuroglu, and A. Sode-Yome, "Real Power Optimization with Load flow Using Adaptive Hopfield Neural Network," Engineering Intelligent Systems, Vol. 8, No. 1, pp. 53-58, March 2000.

 79. Park, J.-B., Y.-M. Park, J.-R. Won, and K. Y. Lee, "An Improved Genetic Algorithm for Generation
- Expansion Planning," <u>IEEE Transactions on Power Systems</u>, Vol. 15, No. 3, pp. 916-922, August 2000. 80. Batzel, T. D. and K. Y. Lee, "Slotless Permanent Magnet Synchronous Motor Operation without a High Resolution Rotor Angle Sensor," <u>IEEE Trans. on Energy Conversion</u>, Vol. 15, No. 4, pp. 366-371, December 2000.
- 81. Garduno-Ramirez R. and K. Y. Lee, "Wide-Range Operation of a Power Unit via Feedforward Fuzzy Control," <u>IEEE Transactions on Energy Conversion</u>, Vol. 15, No. 4, pp. 421-426, December 2000.
- 82. Garduno-Ramirez R. and K. Y. Lee, "Multiobjective Optimal Power Plant Operation Through Coordinate Control with Pressure Set Point Scheduling," <u>IEEE Transactions on Energy Conversion</u>, Vol. 16, No. 2, pp. 115-122, June 2001.
- 83. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "An Explicit Dynamic Model for Direct Reforming Carbonate Fuel Cell Stack", IEEE Trans. on Energy Conversion, Vol. 16, No. 3, pp. 289-295, September
- 84. Garduno-Ramirez, R. and K. Y. Lee, "A Multiobjective-Optimal Neuro-Fuzzy Extension to Power Plant Coordinated Control," <u>Transactions of the Institute of Measurement and Control</u>, Vol. 24, No. 2, pp. 159-192, 2002.
- Lukas, M.D., K.Y. Lee, H. Ghezel-Ayagh, "Modeling and Cycling Control of Carbonate Fuel Cell Power Plants," <u>Control Engineering Practice</u>, Vol. 10, pp. 197-206, 2002.
 Jeon, Y.-J., J.-C. Kim, J.-O. Kim, J.-R. Shin, and K. Y. Lee, "An Efficient Simulated Annealing Algorithm for Network Reconfiguration in Large-Scale Distribution Systems," <u>IEEE Trans. on Power Delivery</u>, Vol. 17, No. 4, pp. 1070-1078, October 2002.
- 87. Moon, U.-C and K. Y. Lee, "A Boiler-Turbine System Control Using a Fuzzy Auto-Regressive Moving Average (FARMA) Model," <u>IEEE Trans. on Energy Conversion</u>, Vol. 18, No. 1, pp.142-148, March 2003.
- 88. Batzel, T. D. and K. Y. Lee, "An Approach to Sensorless Operation of the Permanent-Magnet Synchronous Motor Using Diagonally Recurrent Neural Networks," IEEE Trans. on Energy Conversion, Vol. 18, No. 1, pp. 100-106, March 2003.
- Moon, U.-C and K. Y. Lee, "Hybrid Algorithm with Fuzzy System and Conventional PI Control for the Temperature Control of TV Glass Furnace," <u>IEEE Transactions on Control Systems Technology</u>, Vol. 11, No. 4, pp. 548-554, July 2003.
- 90. Farsangi, M. M., Y. H. Song, and K. Y. Lee, "Choice of FACTS Device Control Inputs for Damping Inter-Area Oscillations", IEEE Transactions on Power Systems, Vol. 19, No. 2, pp. 1135-1143, May 2004.
- 91. Huang, Z., R. M. Edwards, and K. Y. Lee, "Fuzzy-Adapted Recursive Sliding-Mode Controller Design For A Nuclear Power Plant Control", IEEE Transactions on Nuclear Science, Vol. 51, No. 1, pp. 256-266, February 2004.
- 92. H. S. Ko, K. Y. Lee, and H. C. Kim, "An Intelligent based LQR controller design to power system stabilization", Electrical Power System Research, vol. 71, Issue 1, pp.1-9, 2004.

- 93. Liu, C., R. Yokoyama, Kaoru Koyanagi, and K. Y. Lee, "PSS Design for Damping of Inter-area Power Oscillations by Co-herency-based Equivalent Model", <u>International Journal of Electrical Power & Energy</u> Systems, Vol. 26, No. 7, pp. 535-544, 2004.
- 94. Ishimaru, M. R. Yokoyama, O. M. Neto, and K. Y. Lee, "Allocation and Design of Power System Stabilizers for Mitigating Low-Frequency Oscillations in the Eastern Interconnected Power System in
- Japan," <u>International Journal of Electric Power & Energy Systems</u>, Vol. 26, No. 8, pp. 607-618, 2004.

 95. Park, J.-B., K.-S. Lee, J.-R. Shin, and K. Y. Lee, "A Particle Swarm Optimization for Economic Dispatch with Non-Smooth Cost Functions," <u>IEEE Transactions on Power Systems</u>, Vol. 20, No. 1, pp. 34-42, February 2005.
- 96. Lee, B. H. and K. Y. Lee, "An Application of S-Model Learning Automata for Multi-Objective Optimal Operation of Power Systems," IEE Proceedings - Generation, Transmission and Distribution, Vol. 152, No. 2, pp. 295-300, March 2005.
- 97. Shaffer R. A., R. M. Edwards, and K. Y. Lee, "Design and Validation of Robust and Autonomous Control
- Sharler R. A., R. M. Edwards, and R. T. Lee, "Design and Varidation of Robust and Autonomous Control for Nuclear Reactors," <u>Nuclear Engineering and Technology</u>, Vol. 37, No. 2, pp. 139-150, April 2005.
 Kim G. W. and K. Y. Lee, "Coordination Control of ULTC Transformer and STATCOM Based on an Artificial Neural Network," <u>IEEE Transactions on Power Systems</u>, Vol. 20, No. 2, pp. 580-586, May 2005.
 Ghezelayagh, H. and K. Y. Lee, "Application of Self-Organized Neuro-Fuzzy Identifier in Intelligent Predictive Control of a Power Plant," <u>Engineering Intelligent Systems</u>, Vol. 13, No. 2, pp. 113-118, June
- 100. Vlachogiannis J. G., N. D. Hatziargyriou, and K.Y. Lee, "Ant Colony System Based Algorithm for Constrained Load Flow Problem," IEEE Transactions on Power Systems, Vol. 20, No. 3, pp. 1241-1249, August 2005.
- 101. Vlachogiannis J. G. and K.Y. Lee, "Determining Generator Contributions to Transmission System Using Parallel Vector Evaluated Particle Swarm Optimization," <u>IEEE Transactions on Power Systems</u>, Vol. 20, No. 4, pp. 1765-1774, November 2005.
- 102. Garduno-Ramirez R. and K. Y. Lee, "Compensation of Control-Loop Interaction for Power Plant Wide-Range Operation," Control Engineering Practice, Vol. 13, No. 12, pp. 1475-1487, December 2005.
- 103. Batzel, T. D. and K. Y. Lee, "Electric Propulsion with Sensorless Permanent Magnet Synchronous Motor: Implementation and Performance," IEEE Transactions in Energy Conversion, Vol. 20, No. 3, pp. 575-583, September 2005.
- 104. Batzel, T. D. and K. Y. Lee, "Electric Propulsion with the Sensorless Permanent Magnet Synchronous Motor: Model and Approach," IEEE Transactions in Energy Conversion, Vol. 20, No. 4, pp. 818-825, December 2005.
- 105. Sode-Yome, A., N. Mithulanathan, and K. Y. Lee, "A Maxumum Loading Margin Method for Static Voltage Stability in Power Systems," <u>IEEE Transactions on Power Systems</u>, Vol. 21, No. 2, pp. 799-808, May 2006.
- 106. Heo, J. S., K. Y. Lee, and R. Garduno-Ramirez, "Multiobjective Control of Power Plants using Particle Swarm Optimization Techniques," <u>IEEE Transactions on Energy Conversion</u>, Vol. 21, No. 2, pp. 552-561, June 2006.
- 107. Vlachogiannis J. G. and K.Y. Lee, "A Comparative Study on Particle Swarm Optimization for Optimal Steady-State Performance of Power Systems," <u>IEEE Transactions on Power Systems</u>, Vol. 21, No. 4, pp. 1710-1720. N 1718-1728, November 2006.
- 108. Shin, J.-R., B.-S. Kim, J.-B. Park, and K. Y. Lee, "A New Optimal Routing Algorithm for Loss Minimization and Voltage Stability Improvement in Radial Power Systems," IEEE Transactions on Power Systems, Vol. 22, No. 2, pp. 648-657, May 2007.

 109. J.-B. Park, Y.-W. Jeong, J.-R. Shin, K. Y. Lee, and J.-H. Kim, "A hybrid particle swarm optimization
- employing crossover operation for economic dispatch problems with valve-point effects", Engineering Intelligent Systems for Electrical Engineering and Communications, Vol. 15, No. 2, June 2007, pp. 69-74.
- 110. Farsangi, M. M., H. Nezamabadi-Pour, Y. H. Song, and K. Y. Lee, "Placement of SVCs and Selection of Stabilizing Signals for in Power Systems," IEEE Transactions on Power Systems, Vol. 22, No. 3, pp. 1061-1071, August 2007.
- 111. Ko, H.-S., K. Y. Lee, and H.-C. Kim, "Electricity Price Prediction Model Based on Simultaneous Perturbation Stochastic Approximation," Journal of Electrical Engineering & Technology, Vol. 3, No. 1, pp. 14-19, March 2008.
- 112. Choi, T. I. and K. Y. Lee, "Communication system for distribution automation Using CDMA", IEEE
- Transactions in Power Delivery, Vol. 23, No. 2, April 2008, pp. 650-656.

 113. Ko, H.-S., K. Y. Lee, and H.-C. Kim, "A Simultaneous Perturbation Stochastic Approximation (SPSA)-Based Model Approximation and its Application for Power System Stabilizers," International Journal of Control, Automation, and Systems, Vol. 6, No. 4, pp. 506-514, August 2008.

- 114. Cao, M., K. W. Wang, and K. Y. Lee, "Scalable and Invertible PMNN Model for MagnetoRheological Fluid Dampers," Journal of Vibration and Control, 14(5): 731–751, 2008.
- 115. Vlachogiannis J. G. and K. Y. Lee, "Quantum-Inspired Evolutionary Algorithm for Real and Reactive Power Dispatch," IEEE Transactions on Power Systems, Vol. 23, No. 4, pp. 1627-1636, November 2008.
- 116. Ko, H.-S., K. Y. Lee, M.-J. Kang, and H.-C. Kim, "Power quality control of an autonomous wind-diesel power system based on hybrid intelligent controller," Neural networks, Vol. 21, pp. 1439-1446, December
- 117. Heo, J. S. and K. Y. Lee, "A Multi-Agent System-Based Reference Governor For Multiobjective Power Plant Operation," IEEE Transactions on Energy Conversion, Vol. 23, No. 4, pp. 1082-1092, December
- 118. Vlachogiannis, J. G. and K. Y. Lee, "Economic Dispatch A Comparative Study on Heuristic Optimization Techniques with an Improved Coordinated Aggregation-Based PSO," IEEE Transactions on Power Systems, Vol. 24, No. 2, pp. 991-1001, May 2009.
- 119. Moon, Un-Chul and Kwang Y. Lee, "Step-Response Model Development for Dynamic Matrix Control of a Drum-Type Boiler-Turbine System," IEEE Transactions on Energy Conversion, Vol. 24, No. 2, pp. 423-430, June 2009.
- 120. Jeong, Y.-W., J.-B. Park, J.-R. Shin, and K. Y. Lee, "A Thermal Unit Commitment Approach Using an Improved Quantum Evolutionary Algorithm," Electric Power Components and Systems, Vol. 37, No. 7, pp. 770-786, July 2009.
- 121. Kim, M., J. J. Metzner, and K. Y. Lee, "Design and Implementation of a Last-Mile Optical Network for Distribution Automation," IEEE Transactions on Power Delivery, Vol. 24, No. 3, pp. 1198-1205, July 2009.
- 122. Vlachogiannis, J. G. and K. Y. Lee, "Multi-objective based on parallel vector evaluated particle swarm optimization for optimal steady-state performance of power systems," Expert Systems with Applications, Vol. 36, No. 8, pp. 10802-10808, October 2009.
- 123. Park, J.-B., Y.-W. Jeong, J.-R. Shin, and K. Y. Lee, "An Improved Particle Swarm Optimization for Nonconvex Economic Dispatch Problems," IEEE Transactions on Power Systems, Vol. 25, No. 1, pp. 156-166, February 2010.
- 124. Vlachogiannis, J. G. and K. Y. Lee, "Closure to Discussion on Economic Dispatch A Comparative Study
- on Heuristic Optimization Techniques with an Improved Coordinated Aggregation-Based PSO," IEEE Transactions on Power Systems, Vol. 25, No. 1, pp. 591-592, February 2010.

 125. Park, Jeongje, Jaeseok Choi, Ungki Baek, Junmin Cha, and Kwang Y. Lee, "Flexible Maintenance Scheduling of Generation System by Multi-Probabilistic Reliability Criterion in Korea Power System," Journal of Electrical Engineering & Technology Vol. 5, No. 1, pp. 8-15, 2010.
- 126. Ma, Liangyu, Yongguang Ma and Kwang Y. Lee, "An Intelligent Power Plant Fault Diagnostics for Varying Degree of Severity and Loading Conditions," IEEE Transactions on Energy Conversion, Vol. 25, No. 2, pp. 546-554, June 2010.
- 127. Jeong, Yun-Won, Jong-Bae Park, Se-Hwan Jang, and Kwang Y. Lee, "A New Quantum-Inspired Binary PSO: Application to Unit Commitment Problems for Power Systems," IEEE Transactions on Power Systems, Vol. 25, No. 3, pp. 1486-1495, August 2010.
- 128. Park, J.-B., Y.-W. Jeong, J.-R. Shin, and K. Y. Lee, "Closure to Discussion of 'An Improved Particle Swarm Optimization for Nonconvex Economic Dispatch Problems," IEEE Transactions on Power Systems, Vol. 25, No. 4, pp. 2010- 2011, November 2010.
- 129. Lee, Kwang Y., Joel H. Van Sickel, Jason A. Hoffman, Won-Hee Jung, and Sung-Ho Kim, "Controller Design for a Large-Scale Ultra Super Critical Once-Through Boiler Power Plant," IEEE Transactions on
- Energy Conversion, Vol. 25, No. 4, pp. 1063-1070, December 2010.

 130. Yang, Wenli, Kwang Y. Lee, S. Tobias Junker, and Hossein Ghezel-Ayagh, "Fuzzy Fault Diagnosis and Accommodation System for Hybrid Fuel-Cell/Gas Turbine Power Plant," IEEE Transactions on Energy Conversion, Vol. 25, No. 4, pp. 1187-1194, December 2010.

 131. Khaleghi, Milad, Malihe M. Farsangi, Hossein Nezamabadi-Pour, and Kwang Y. Lee, "Pareto Optimal
- Design of Damping Controllers Using Modified Artificial Immune Network Algorithm," IEEE Transactions
- on Systems, Man and Cybernetics, Part C, Vol. 41, No. 2, pp. 240-250, March 2011.

 132. Moon, Un-Chul and Kwang Y. Lee, "An Adaptive Dynamic Matrix Control with Fuzzy-Interpolated Step-Response Model for a Drum-Type Boiler-Turbine System," IEEE Transactions on Energy Conversion, Vol. 26, No. 2, pp. 393-401, June 2011.
 133. Van Sickel, Joel H. and Kwang Y. Lee, "Pareto Optimization for Power Plant Control and Reverse Normal-
- Boundary Intersection," in press, IEEE Transactions on Energy Conversion, Vol. 26, 2011.
- 134. Ma, Liangyu, Zhenxing Shi, and Kwang Y. Lee, "Superheater Steam Temperature Control Based on the Expanded-Structure Neural Network Inverse Models," Advanced Materials Research, Vols. 443-444 (2012) pp 401-407, © (2012) Trans Tech Publications, Switzerland doi:10.4028/www.scientific.net/AMR.443-444.401.

8

- 135. Kim, Eil-Hwan, Jae-Hong Kim, Se-Ho Kim, Jaeho Choi, Kwang Y. Lee, and Ho-Chan Kim, "Impact Analysis of Wind Farms in the Jeju Island Power System," IEEE Systems Journal, Vol. 6, No. 1, pp. 134-139, March 2012.
- 136. Li, Y., Shen, J., Lee, K. Y., and Liu, X., "Offset-free fuzzy model predictive control of a boiler-turbine system based on genetic algorithm," Simulation Modelling Practice and Theory, Vol. 26, pp. 77 – 95, 2012.
- 137. Jaeseok Choi, Jintaek Lim, and Kwang Y. Lee, "DSM considered Probabilistic Reliability Evaluation and an Information System for Power Systems Including Wind Turbine Generators," IEEE Transactions on Smart Grids, Vol. 4, No. 1, pp. 425-432, March 2013.
- 138. Komail Nekooei, Malihe M. Farsangi, Hossein Nezamabadi-pour, and Kwang Y. Lee, "An Improved Multiobjective Harmony Search for Optimal Placement of DGs in Distribution Systems," IEEE Transactions on Smart Grids, Vol. 4, No. 1, pp. 557-567, March 2013.
- 139. Rakibuzzaman Shah, N. Mithulananthan, and Kwang. Y. Lee, "Large-scale PV Plant with Robust Controller Considering Power Oscillation Damping," IEEE Transactions on Energy Conversion, Vol. 28, No. 1, pp. 106-116, March 2013.
- 140. Arthit Sode-Yome, Nadarajah Mithulananthan, and Kwang Y. Lee, "Comprehensive Comparison of FACTS Devices for Exclusive Loadability Enhancement," IEEJ Transactions on Electrical and Electronic
- Engineering, Vol. 8, No. 1, pp. 7-18, 2013.

 141. C. J. Boo, J. H. Kim, H. C. Kim, M. J. Kang and K. Y. Lee, "Energy efficient temperature control for peak power reduction in building cooling systems," International Journal of Control and Automation. 6 (2013) 105-114.
- 142. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Data-Driven Modeling and Predictive Control for Boiler-Turbine Unit," IEEE Transactions on Energy Conversion, Vol. 28, No. 3, pp. 470-481, September
- 143. Rakibuzzaman Shah, N. Mithulananthan, Kwang. Y. Lee, and Ramesh C. Bansal, "Wide-area measurement signal-based stabilizer for photovoltaic plants with high variability and uncertainty," IET Renewable Power Generation, Vol. 7, Iss. 6, pp. 614-622, 2013, DOI: 10.1049/iet-rpg.2013.0046, Print ISSN 1752-1416, Online ISSN 1752-1424.
- 144. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Data-driven modeling and predictive control for boiler-turbine unit using fuzzy clustering and subspace methods," ISA Transactions, Volume 53, Issue 3, May 2014, Pages 699–708.
- 145. Duong Quoc Hung, N. Mithulananthan, and Kwang. Y. Lee, "Optimal placement of dispatchable and nondispatchable renewable DG units in distribution networks for minimizing energy loss," International Journal of Electrical Power and Energy Systems, Vol. 55, pp. 179-186, 2014.
- 146. Nadarajah Mithulananthan, Rakibuzzaman Shah, and Kwang. Y. Lee, "Small-Disturbance Angle Stability Control with High Penetration of Renewable Generations," IEEE Transactions on Power Systems, Vol. 29, No. 3, pp. 1463-1472, May 2014.
- 147. Kyu-Ho Kim, Jin-Wook Park, Sang-Bong Rhee, Sungwoo Bae, Kyung-Bin Song, and Kwang Y. Lee, "Probabilistic assessment of total transfer capability using SQP and weather effects," Journal of Electrical Engineering & Technology, Vol. 9, No. 5, pp. 1520-1526, 2014.

 148. Chang-Jin Boo, Kwang Y. Lee, and Ho-Chan Kim, "EV Charging Control for Energy Cost Optimization Using Model Predictive Control," Contemporary Engineering Sciences, Vol. 7. No. 22, pp. 1131-1137,
- 2014.
- 149. Duong Quoc Hung, Nadarajah Mithulananthan, and Kwang Y. Lee, "Determining PV Penetration for Distribution Systems With Time-Varying Load Models," IEEE Transactions on Power Systems, Vol. 29, No. 6,
- pp. 3048-3057, November 2014. 150. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Fuzzy modeling and stable model predictive tracking control of large-scale power plants," Journal of Process Control, Volume 24, Issue 10, 2014, Pages 1609– 1626.
- 151. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Hierarchical optimization of boiler-turbine unit using fuzzy stable model predictive control," Control Engineering Practice, 30:112–123, 2014.
- 152. Xiaobing Kong, Xiangjie Liu, and Kwang Y. Lee, "Data-driven Modeling of a DFIG Wind Turbine System based on Neural Networks," IET Renewable Power Generation, 2014, 8(8): 849 – 857.
- 153. Heesang Ko, Su-Hyung Yang, Young Il Lee, Chang-Jin Boo, Kwang Y. Lee, and Ho-Chan Kim, "Power Quality Control of Hybrid Wind Power Systems using Robust Tracking Controller," J. Electr. Eng. Technol., Vol. 10. No. 2, pp. 688-698, 2015.
- 154. Y. Tan, C. Li, Y. Cao, K. Y. Lee, L. Li, S. Tang, L. Zhou, "Improved group search optimization method for optimal power flow problem considering valve-point loading effects," Neurocomputing, vol. 148, pp. 229-239, 2015.

- 155. Eunsung Oh, Sun-Yong Son, Hemi Hwang, Jong-Bae Park, and Kwang Y. Lee, "Impact of Demand and Price Uncertainties on Customer-side Energy Storage System Operation with Peak Load Limitation," Electric Power Components and Systems Journal, 43(16):1872–1881, 2015.
- 156. Li Sun, Donghai Li, and Kwang Y. Lee. "Enhanced decentralized PI control for fluidized bed combustor via advanced disturbance observer," Control Engineering Practice 42 (2015): 128-139.
- 157. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee. "Steam power plant configuration, design, and control," Wiley Interdisciplinary Reviews (WIRES): Energy and Environment, vol.4, no. 6, pp 537-563, Nov-Dec. 2015.
- 158. Xiaobing Kong, Xiangjie Liu, Ruifeng Shi, and Kwang Y. Lee, "Wind speed prediction using reduced support vector machines with feature selection," Neurocomputing, vol. 169, 2015, pp.449-456.
- 159. Xiaobing Kong, Xiangjie Liu, and Kwang Y. Lee, "Nonlinear multivariable hierarchical model predictive control for boiler-turbine system," Energy, vol. 93, Part 1, no. 4, 2015, pp.309-322.
- 160. Xiangjie Liu, Di Jiang, and Kwang Y. Lee, "Quasi-min-max fuzzy MPC of UTSG water level based on offline invariant set," IEEE Transactions on Nuclear Science, vol. 62, no. 5, 2015, pp. 2266-2272.
- 161. Xiangjie Liu, Di Jiang, and Kwang Y. Lee, "Decentralized Fuzzy MPC on Spatial Power Control of a Large PHWR," IEEE Transactions on Nuclear Science, 2016, 63(4): 2343 - 2351.
- 162. Kyu-Ho Kim, Sang-Bong Rhee, Kab-Ju Hwang, Kyung-Bin Song, and Kwang Y. Lee, "Generation Rescheduling Based on Energy Margin Sensitivity for Transient Stability Enhancement," J. Electr. Eng. Technol., Vol. 11. No. 1, pp. 20-28, January 2016.
 163. Li Sun, Junyi Dong, Donghai Li, and Kwang Y. Lee, "A Practical Multivariable Control Approach Based on Inverted Decoupling and Decentralized Active Disturbance Rejection Control," Industrial & Engineering
- Chemistry Research, 55(7): 2008-2019, February 2016. DOI: 10.1021/acs.iecr.5b03738.

 164. Li Sun, Donghai Li, Kangtao Hu, Kwang Y. Lee, and Fengping Pan. "On Tuning and Practical Implementation of Active Disturbance Rejection Controller: A Case Study from a Regenerative Heater in a 1000MW Power Plant." Industrial & Engineering Chemistry Research, 55(23): 6686-6695. DOI: 10.1021/acs.iecr.6b01249.
- 165. Un-Chul Moon, Jaewoo Lim, and Kwang Y. Lee, "A Comparison Study of MIMO Water Wall Model with
- Linear MFNN and ESN Models," J. Electr. Eng. Technol., Vol. 11, No. 1, pp. 709-718, 2016. 166. Linjun Shi, Kwang Y. Lee, and Feng Wu, "Robust ESS-based Stabilizer Design for Damping Inter-area Oscillations in Multi-machine Power Systems," IEEE Transactions on Power Systems, Vol. 31, No. 2, pp. 1395-1406, March 2016.
- 167. Xiaobing Kong, Xiangjie Liu, and Kwang Y. Lee, "An Effective Nonlinear Multivariable HMPC for USC Power Plant Incorporating NFN-based Modeling," IEEE Trans. Industrial Informatics, Vol. 12, No. 2, pp. 555-566, April 2016. DOI: 10.1109/TII.2016.2520579
- 168. Wenlei Bai, M. Reza Abedi, Kwang Y. Lee, "Distributed generation system control strategies with PV and fuel cell in microgrid operation," Control Engineering Practice 53 (2016) 184–193.
- 169. Li Sun, Donghai Li, Kwang Y. Lee, and Yali Xue, "Control-oriented modeling and analysis of direct energy balance in coal-fired boiler-turbine unit," Control Engineering Practice 55 (2016): 38-55.

 170. Xiangjie Liu, Yi Zhang, and Kwang Y. Lee, "Robust distributed MPC for load frequency control of uncertain power systems," Control Engineering Practice, vol. 56, pp.136-147, 2016.

 171. Li Sun, Donghai Li, and Kwang Y. Lee. "Optimal disturbance rejection for PI controller with constraints on relative delay margin." ISA Transactions, 63 (2016) 103-111.
- relative delay margin," ISA Transactions, 63 (2016) 103-111.

 172. Li Sun, Donghai Li, Qing-Chang Zhong, and Kwang Y. Lee. "Control of a class of industrial processes with time delay based on a modified uncertainty and disturbance estimator," IEEE Transactions on Industrial Electronics, Vol. 63, No. 11, pp. 7018-7028, November 2016.

 173. Xiangjie Liu, Xiaobing Kong, Kwang Y. Lee, "Distributed model predictive control for load frequency
- control with dynamic fuzzy valve position modelling for hydro-thermal power system," IET Control Theory & Applications, 2016, 10(14): 1653 - 1664.
- 174. Xiangjie Liu, Yi Zhang, Kwang Y. Lee, "Coordinated Distributed MPC for Load Frequency Control of Power System with Wind Farms," IEEE Trans. on Industrial Electronics, Vol. 64, No. 6, pp. 5140-5150, June 2017, Print ISSN: 0278-0046, Online ISSN: 1557-9948 DOI: 10.1109/TIE.2016.2642882
- 175. Yi Tan, Yijia Cao, Yong Li, Kwang Y. Lee, Lin Jiang, and Shuaihu Li, "Optimal Day-ahead Operation Considering Power Quality for Active Distribution Networks," IEEE Transactions on Automation Science
- and Engineering, Vol. 14, No. 2, pp. 425-436, December 2016. DOI: 10.1109/TASE.2016.2629477. 176. Yong Li, Wenguo Li, Yi Tan, Yijia Cao, Fang Liu, and Kwang Y. Lee, "Hierarchical Decomposition for Betweenness Centrality Measure of Complex Networks," www. Nature.com/ScientificReports, 7:46491 DOI: 10.1038/srep46491, April 20, 2017.
- 177. Guiying Wu, Li Sun, and Kwang Y. Lee, "Disturbance Rejection Control of a Fuel Cell Power Plant in a Grid-Connected System," Control Engineering Practice, vol. 60, pp.183-192, 2017.

- 178. Wenlei Bai, Ibrahim Eke, and Kwang Y. Lee, "An improved artificial bee colony optimization algorithm based on orthogonal learning for optimal power flow problem," Control Engineering Practice, vol. 61, pp. 163-172, 2017.
- 179. Yong-Gi Park, Jong-Bae Park, Namsu Kim, and Kwang Y. Lee, "Linear Formulation for Short-Term Operational Scheduling of Energy Storage Systems in Power Grids," Energies 2017, 10, 207, 21 pages; doi:10.3390/en10020207, Received: 11 July 2016; Accepted: 7 February 2017; Published: 12 February
- 180. Wenlei Bai, Duehee Lee, and Kwang Y. Lee, "Stochastic Dynamic AC Optimal Power Flow Based on a Multivariate Short-Term Wind Power Scenario Forecasting Model," Energies 2017, 10, 2138, 18 pages; doi:10.3390/en10122138, Published: 15 December 2017.
- 181. L. Sun, Q. Hua, D. Li, Y. Xue, L. Pan, and K. Y. Lee, "Direct energy balance based active disturbance rejection control for coal-fired power plant," ISA Transactions. September 2017 (vol.70), pp. 486-493, http://dx.doi.org/10.1016/j.isatra.2017.06.003.
- 182. Li Sun, Qingsong Hua, Yali Xue, Donghai Li, and Kwang Y. Lee, "A Practical Control Strategy for Solid Oxide Fuel Cells based on Active Disturbance Rejection Control," submitted to Journal of Power Sources, April 28, 2017.
- 183. Li Sun, Qingsong Hua, Jiong Shen, Yali Xue, Donghai Li, and Kwang Y. Lee, "A Combined Voltage Control Strategy for Fuel Cell," Sustainability 2017, 9, 1517; doi:10.3390/su9091517.
- 184. Li Sun, Qingsong Hua, Jiong Shen, Yali Xue, Donghai Li, and Kwang Y. Lee, "Multi-objective optimization for advanced superheater steam temperature control in a 300 MW power plant," Applied Energy 208 (2017) 592-606, http://dx.doi.org/10.1016/j.apenergy.2017.09.095.

 185. Xiao Han, Ming Zhou, Gengyin Li, and Kwang Y. Lee, "Stochastic Unit Commitment of Wind Integrated 2017.1154.
- Power System Considering Air-conditioning Loads for Demand Response," Applied Science 2017, 7,1154; doi:10.3390/app7111154.
- 186. Xiao Han, Ming Zhou, Gengyin Li, and Kwang Y. Lee, "Optimal Dispatching of Active Distribution Networks Based on Load Equilibrium," Energies 2017, 10, 2003; doi:10.3390/en10122003.
- 187. Md Shariful Islam, Nadarajah Mithulananthan, and Kwang Y. Lee, "Suitability of PV and Battery Storage in EV Charging at Business Premises," IEEE Transactions on Power Systems, Vol. 33, No. 4, pp. 4382-4396, July 2018.
- 188. Youngho Cho, Kyeon Hur, Kwang Y. Lee, and Chan-Ki Kim, "Optimal Controller Design for Stabilizing a Power System with Multiple Converter-interfaced Generators," IEEE Transactions on Industry Applications, submitted on Dec. 15, 2017.
- 189. Xiufan Liang, Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Nonlinearity analysis and multi-model modeling of an MEA-based post-combustion CO2 capture process for advanced control design," Applied Sciences, 2018, 8, 1053, pp. 1-21; doi:10.3390/app8071053.
- 190. Un-Chul Moon, Youngjun Lee, and Kwang Y. Lee, "Practical dynamic matrix control for thermal power plant coordinated control," Control Engineering Practice, vol. 71, pp. 154-163, 2018.
- 191. Ming Sun, Kwang Y. Lee, Yaoqun Xu, and Wenlei Bai, "Hysteretic Noisy Chaotic Neural Networks for Resource Allocation in OFDMA System," IEEE Transactions on Neural Networks and Learning Systems,
- Vol. 29, No. 2, pp. 273-285, February 2018. DOI: 10.1109/TNNLS.2016.2618898.

 192. L. Sun, G. Wu, D. Li, and K. Y. Lee, "Coordinated control strategies for fuel cell power plant in a microgrid," IEEE Trans. Energy Conversion, Vol. 33, No. 1, pp. 1-9, March 2018. DOI: microgrid," IEEE Trans. Energy Conversion, Vol. 33, No. 1, pp. 1-9, March 2018. DOI: 10.1109/TEC.2017.2729881, ISNN: 0885-8969 (print), 1558-0059 (online).
- 193. Md Shariful Islam, Nadarajah Mithulananthan, and Kwang Y. Lee, "Development of Impact Indices for Performing Charging of a Large EV Population," IEEE Transactions on Vehicular Technology, Vol. 67, No. 2, pp. 866-880, February 2018. ISSN: 0018-9545 (print), 1939-9359 (online), DOI: 2, pp. 866-880, Febru 10.1109/TVT.2017.2755648.
- 194. Yong Li, Wenchao Tian, Yi Tan, Yijia Cao, Shengwei Tang, Jie He, and Kwang Lee, "Integrated Optimal Siting and Sizing for VSC-HVDC Link-Based Offshore Wind Generators and Shunt Capacitors."
- International Journal of Electrical Power and Energy Systems, submitted on Jan. 8, 2018.

 195. Hao Fu, Li Sun, Jiong Shen, and Kwang Y. Lee, "On dynamic operation modes of fuel cell: A comparison between the single-loop and multi-loop controls," International Journal of Hydrogen Energy, 43 (2018), pp.
- 196. Tianyao Pan, Li Sun, Jiong Shen, and Kwang Y Lee, "Anode Pressure Regulation of a PEMFC by Iterative Learning Control during Purge Processes," Applied Energy, submitted on Jan. 29, 2018.
- 197. Siwei Han, Li Sun, Jiong Shen, Lei Pan, and Kwang Y. Lee, "Optimal Load-Tracking Operation of Grid-Connected Solid Oxide Fuel Cells through Set Point Scheduling and Combined L1-MPC Control," Energies, 2018, 11, 801; doi:10.3390/en11040801.

198. Xiao Wu, Jiong Shen, Yiguo Li, Meihong Wang, Adekola Lawal, and Kwang Y. Lee, "Nonlinear dynamic analysis and control design of a solvent-based post-combustion CO2 capture process," Computers and Chemical Engineering 115 (2018) 397–406; doi:10.1016/j.compchemeng.2018.04.028.

199. Xian Yang, Yong Li, Ye Cai, Yijia Cao, Kwang Y. Lee, and Zhijian Jia, "Impact of Road-Block on Peak-Load of Coupled Traffic and Energy Transportation Networks." Energies 2018, 11, 1776;

doi:10.3390/en11071776.

200. Xiufan Liang, Xiao Wu, Yiguo Li, Jiong Shen, and Kwang Y. Lee. "Nonlinearity analysis and multi-model modeling of an MEA-based post-combustion CO2 capture process for advanced control design," Appl. Sci. 2018, 8, 1053; doi:10.3390/app8071053.

201. Bo-kyu Kwon, Soohee Han, and Kwang Y. Lee, "Robust Estimation and Tracking of Power System Harmonics Using an Optimal Finite Impulse Response Filter," Energies 2018, 11, 1811;

doi:10.3390/en11071811.

202. Ruifeng Shi, Shaopeng Li, Changhao Sun, and Kwang Y. Lee, "Adjustable Robust Optimization Algorithm for Residential Microgrid Multi-Dispatch Strategy with Consideration of Wind Power and Electric Vehicles," Energies 2018, 11, 2050; doi:10.3390/en11082050.

203. Sung-Won Park, Sung-Yong Son, Changseob Kim, Kwang Y. Lee, and Hye-Mi Hwang, "An Improved Photovoltaic System Output Prediction Model under Limited Weather Information," J. Electr Eng Technol.2018; 13(5): 1874-1885, http://doi.org/10.5370/JEET.2018.13.5.1874. ISSN(Print) 1975-0102, ISSN(Online) 2093-7423.

204. Li Sun, Jiong Shen, Qingsong Hua, and Kwang Y. Lee, "Data-driven oxygen excess ratio exchange

membrane fuel cell," Applied Energy 231 (2018) 866-875, https://doi.org/10.1016/j.apenergy.2018.09.036
205. Yu Huang, Kai Yang, Weiting Zhang, and Kwang Y. Lee, "Hierarchical Energy Management for Multi-Energy Carriers System with Different Interest Bodies," Energies 2018, 11, 2834; doi:10.3390/en11102834

206. Muhammad Qamar Raza, Nadarajah Mithulananthan, Jiaming Li, and Kwang Y. Lee, "Multivariate Ensemble Forecast Framework for Demand Prediction of Anomalous Days," accepted for publication in IEEE Transactions on Sustainable Energy.

207. Vedat C. Elik, Mahmut Temel özdemir, Kwang Y. Lee, "Effects of fractional-order PI controller on delay margin in single-area delayed load frequency control systems," J. Mod. Power Syst. Clean Energy, November 2018, https://doi.org/10.1007/s40565-018-0458-5

208. Chen Chen, Lei Pan, Shanjian Liu, Li Sun, and Kwang Y. Lee, "A Sustainable Power Plant Control Strategy Based on Fuzzy Extended State Observer and Predictive Control," Sustainability 2018,10(12), 4824; https://doi.org/10.3390/su10124824

209. Yuhui Jin, Li Sun, Jiong Shen, and Kwang Y. Lee, "Data-Driven Temperature Control of Air-cooling Fuel Cell Based On Active Disturbance Rejection," submitted to Chemical Engineering Research and Design,

December 22, 2018.

210. Xiao Wu, Meihong Wang, Jiong Shen, Yiguo Li, Adekola Lawal, and Kwang Y. Lee, "Reinforced coordinated control of coal-fired power plant retrofitted with solvent based CO2 capture using model predictive controls," Applied Energy 238 (2019) 495–515; https://doi.org/10.1016/j.apenergy.2019.01.082.
211. Herlambang Setiadi, Nadarajah Mithulananthan, Rakibuzzaman Shah, Kwang Y. Lee, and Awan Uji Krismanto, "Resilient Wide-area Multi-mode Controller Design based on Bat Algorithm for Power Systems with Renewable Power Generation and Battery Energy Storage Systems," IET Generation, Transmission & Distribution Distribution, February, 2019, DOI: 10.1049/iet-gtd.2018.6384, Print ISSN 1751-8687, Online ISSN 1751-8695.

212. Feyijimi Adegbohun, Annette von Jouanne, and Kwang Y. Lee, "Autonomous Battery Swapping System and Methodologies of Electric Vehicles," Energies 2019, 12, 667; doi: 10.3390/en12040667.

213. Chen Chen, Jiangfan Lin, Lei Pan, Kwang Y. Lee, and Li Sun, "Improving Simultaneous Cooling and Power Load-Following Capability for MGT-CCP Using Coordinated Predictive Controls," Energies 2019,12, 1180; doi:10.3390/en12061180.

214. Tianyao Pan, Jiong Shen, Li Sun, and Kwang Y. Lee, "Thermodynamic modelling and intelligent control of anode purge," Applied Thermal Engineering 154 (2019), May 25, https://doi.org/10.1016/j.apenergy.2018.09.036. 215. Hao Fu, Jiong Shen, Li Sun, and Kwang Y. Lee, "Humidity Modeling and Control of PEM Fuel Cell using

External Membrane Humidifier," submitted to Applied Energy, February 2, 2019.

216. Li Sun, Yuqiong Zhang, Donghai Li, and Kwang Y. Lee, "Tuning of Active Disturbance Rejection Control with Application to Power Plant Furnace Regulation," Control Engineering Practice, 92 (2019) 104122, https://doi.org/10.1016/j.conengprac.2019.104122

217. Guanru Li, Lei Pan, Qingsong Hua, Li Sun, and Kwang Y. Lee, and, "Water Pump Control: A Hybrid Data-Driven and Model-Assisted Active Disturbance Rejection Approach," Water 2019, 11, 1066;

doi:10.3390/w11051066.

- 218. Xiaobing Kong, Xiangjie Liu, Lele Ma, Kwang Y. Lee, "Hierarchical Distributed Model Predictive Control of Standalone Wind/Solar/Battery Power System," IEEE Transactions on Systems, Man, and Cybernetics: Systems, Vol. 49, Issue 8, pp. 1570-1581, August 2019, DOI: 10.1109/TSMC.2019.2897646.
- 219. Muhammad Qamar Raza, Nadarajah Mithulananthan, Jiaming Li, Kwang Y. Lee, and Hoay Beng Gooi, "An Ensemble Framework For Day-Ahead Forecast of PV Output in Smart Grids," IEEE Transactions on Industrial Informatics, Vol. 15, No. 8, pp. 4624-4634, August 2019.

2. **Books and Book Chapters**

- Lee, K. Y., S. N. Chow and R. O. Barr, "On the Control of Discrete-Time Distributed Parameter Systems," Recent Development in Control Theory, pp. 141-156, Society for Industrial and Applied Mathematics, Philadelphia, 1972
- Barr, R. O., H. E. Koenig, K. Y. Lee, et al., "Ecologically and Economically Compatible Pest Control," Insects: Studies in Population Management, pp. 241-263, Ecological Society of Australia (Memoirs I), Canberra, 1973.
- Lee, K. Y., "Modeling and Estimation of Distributed Parameter Systems with Uncertain Parameters," Distributed Parameter Systems: Modeling and Identification, Lecture Notes in Control
- and Information Sciences, Vol. 1, pp. 325-334, Springer-Verlag, Berlin-Heidelberg-New York, 1978. Lee, K. Y., "Bilinear Distributed Systems and Pest Management," Recent Development in Variable Structure Systems, Economics and Biology, Lecture Notes in Economics and Mathematical Systems, Vol. 162, pp. 173-188, Springer-Verlag, Berlin-Heidelberg-New York, 1978.
- Lee, K. Y., "Coordinated Control of Distributed-Parameter Systems," 5. Distributed-Parameter
- Control Systems Theory and Application, Ed. S.G. Tzafestas, Pergamon Press, pp. 213-238, 1982. Lee, K. Y., "Techniques for the Identification of Distributed Systems Using Finite Element Approximation", in System Identification and Adaptive Control, Part 3, Control and Dynamic Systems: Advances in Theory and Applications, Vol. 27, Ed. C. T. Leondes, Academic Press, 1988,
- pp. 183-215.
 Lee, K. Y., "System Identification of Flexible Structures," Distributed Parameter Control Systems: New Trends and Applications, Lecture Notes in Pure and Applied Mathematics, Vol. 128, Eds. G.
- Chen, E. B. Lee, W. Littman, and L. Markus, Marcel Dekker, New York, NY, pp. 475-499, 1991. Lee, K. Y. and Y. M. Park, "Optimal Operational Planning: A Unified Approach to Real and Reactive Power Dispatch," Control and Dynamic Systems, Vol. 42, Ed. C. T. Leondes, Academic Press, pp. 293-339, 1991.
- Lee, K. Y. and Y. M. Park, "Power System Generation Expansion Planning Using the Maximum Principle and Analytical Production Cost Model," Control and Dynamic Systems, Vol. 44, Ed. C.
- T. Leondes, Academic Press, pp. 193-237, 1991.

 10. Lee, K. Y., "Control of Power Systems," Chapter 12 in A Tutorial Course on Artificial Neural Networks with Applications to Power Systems (M. El-Sharkawi and D. Niebur, Editors), IEEE Power Engineering Society, IEEE Catalog Number 96TP112-0, Piscataway, NJ, 1996.
- 11. Lee, K. Y., "Control Design and Stability," Chapter 4 in Tutorial on Fuzzy Logic Applications in Power Systems, (K. Tomsovic and M. Y. Chow, Editors), IEEE Power Engineering Society, IEEE Catalog Number TP140-0, pp. 4.1 – 4.12, Piscataway, NJ, 1997.
- 12. Park, Y.-M., M.-S. Choi, and K. Y. Lee, "A Receding Horizon Optimal Tracking Neuro-Controller for Nonlinear Dynamic Systems," Chapter 4 in Advances in Control and Dynamic Systems Techniques and Applications, (C. T. Leondes, Editor), Academic Press, Vol. 7, pp. 157-189, San Diego, ČA, 1998.
- Park, Y. M. U.-C. Moon, and K. Y. Lee, "Online Self-Organizing Fuzzy Logic Controller Using A Fuzzy Auto-Regressive Moving Average Model and Its Application," Fuzzy Theory Systems: Techniques and Applications, (C. T. Leondes, Editor), Vol. 2, pp. 831-869, Academic Press, 1999.
 Niebur, D., S. M. Rovnyak, J. D. McCalley, K. Y. Lee, and T. Hiyama, "State-Of-The Art in Company of the Press, 1999.
- Intelligent Controls," Chapter 4 in Advanced Angle Stability Controls, (C. Taylor, Editor), CIGRE TF 38.02.17, 2000,
- 15. Garduno-Ramirez, R. and K. Y. Lee, "Intelligent Multiagent Control for Power Plants," Intelligent Systems: Technology and Applications, (C. T. Leondes, Editor), Vol. 6, pp. 181-209, CRC Press, June 2002.
- 16. Lee, K. Y. and M. A. El-Sharkawi (Editors), Tutorial on Modern Heuristic Optimization Techniques with Applications to Power Systems IEEE Power Engineering Society, ÎEEE Catalog Number 02TP160, Piscataway, NJ, 2002.
- Garduno-Ramirez, R. and K. Y. Lee, "Extending Plant Load-Following Capabilities", Thermal Power Plant Simulation and Control, (D. Flynn, Editor), pp. 205-241, IEE Press, Stevenage, UK, 2003.

- 18. Lee, K. Y. and M. A. El-Sharkawi (Editors), A Tutorial Course on Evolutionary Computation Techniques for Power System Optimization, IFAC Symposium on Power Plants and Power System Control, Seoul, Korea, 2003.
- 19. Lee, K. Y., "Electric and Magnetic Fields", in Electrical Engineering, edited by Kit Po Wong, in KNOWLEDGE FOR SUSTAINABLE DEVELOPMENT An Insight into the ENCYCLOPEDIA OF LIFE SUPPORT SYSTEMS, Vol. I. Physical Sciences, Engineering and Technology Resources, pp. 913-931, UNESCO Publishing- Eolss Publishers, Oxford, UK, 2004. [http://www.eolss.net] Lee, K. Y. (Editor), Tutorial on Intelligent Optimization and Control of Power Systems, the 13th
- International Conference on Intelligent Systems Application to Power Systems, Arlington, VA,
- 21. Lee, K. Y. and J. G. Vlachogiannis, "Optimization of Power Systems Based on Ant Colony Systems: An Overview," Tutorial on Intelligent Optimization and Control of Power Systems, pp. 22-35, the 13th International Conference on Intelligent Systems Application to Power Systems, Arlington, VA, 2005.
- 22. Lee, K. Y., M. M. Farsangi, and H. Nezamabadi-pour, "Modern Heuristic Optimization Methods for Designing the Optimal Location and Size of FACTS Devices," Chapter 2 in Toward an Itelligent Grid with Distributed Resources, Tutorial given at the 14-th International Conference on Intelligent Systems Application to Power Systems (ISAP 2007), Kaohsing, Taiwan, November 5-8, 2007, pp.
- 23. Lee, K. Y. and M. A. El-Sharkawi (Editors), Modern Heuristic Optimization Techniques with Applications to Power Systems, IEEE Press, ISBN: 978-0-471-45711-4, Wiley: New York, 2008.
- Ko, Hee-Sang, K. Y. Lee, and Ho-Chan Kim, "An Intelligent Controller for a Remote Wind-Diesel Power System: Design and Dynamic Performance Analysis," Wind Power Systems: Applications of Computational Intelligence, (L. Wang, C. Singh and A. Kusiak, Editors), Springer, ISBN-13: 978-3642132490, pp297-335, 2010.
- 25. Kwang. Y. Lee, Malihe M. Farsangi, Jong-Bae Park, and John G. Vlachogiannis, "Heuristic Optimization Techniques," Advanced Solutions in Power Systems: HVDC, FACTS, and Artificial Intelligence, (Mircea Eremia, Chen-Ching Liu, Abdel-Aty Edris Editors), ISBN: 978-1-119-03569-5, Wiley-IEEE Press, October 2016.
- 26. Nadarajah Mithulananthan, Duong Quoc Hung, and Kwang Y. Lee, Intelligent Network Integration of Distributed Renewable Generation, Springer: New York, 2017. ISSN 1865-3529, 1865-3537 (electronic), ISBN 978-3-319-49270-4, 978-3-319-49271-1 (eBook), DOI 10.1007/978-3-319-49271-1.

3. **Refereed Proceedings**

- Lee, K. Y. and R. O. Barr, "Optimal Sampled-Data Regulators of Distributed Parameter Systems," Proc. IEEE Conference on Decision and Control, pp. 607-711, December 1971.
- 2. Barr, R. O., A. N. Kharkar and K. Y. Lee, "Population Balance Models in Ecological Systems," Proc. 65th Annual Meeting of AICHE in the Symposium on Modeling of Ecological Systems, November 1972.
- Lee, K. Y., "Optimal Estimation of Operator-Valued Stochastic Processes and Applications to Distributed Parameter Systems," Proc. IEEE Conference on Decision and Control, pp. 94-98,
- Lee, K. Y. and V. Mandrekar, "Multiplicity and Martingale Approach to Linear State Estimation," Proc. the 7th Princeton Conference on Information Sciences and Systems, pp. 136-14l, March 1973.Lee, K. Y. and V. Mandrekar, "Recursive Optimal Estimation of Multiple Markov Processes," Proc. International Conference on Cybernetics and Society, pp. 200-205, November 1973. Lee, K. Y., "Characterization and Control of Age-Dependent Biological Processes in a Natural Ecosystem: Pest Management" (Invited Paper), Proc. the 6th Annual Southeastern Symposium on System Theory, RP-2, February 1974.

 Lee, K. Y., "Design of Optimal Sampled-Data Pointwise Controllers for Distributed Parameter Systems." Proc. Milwaykas Symposium on Automatic Control. pp. 350-363. Merch 1974.
- Systems," Proc. Milwaukee Symposium on Automatic Control, pp. 359-363, March 1974.
 Barr, R. and K. Y. Lee, "Population Dynamics of an Insect Pest-Parasite-Plant Ecosystem as a
- Distributed Parameter Model" (Invited Paper) Proc. Joint Automatic Control Conference, p. 460,
- Lee, K. Y., "Modeling and Simulation of an Agricultural Pest Ecosystem," Proc. the 6th Annual 9. Pittsburgh Conference on Modeling and Simulation, Vol. 6, pp. 843-848, April 1975.
- Lee, K. Y., "Optimal Bilinear Control Theory Applied to Pest Management" (Invited Paper), <u>Proc. IEEE Conference on Decision and Control</u>, SPC3-3, December 1975.
- 11. Clary, J. W. and K. Y. Lee, "Stochastic Approach to Minimal Realization," Proc.the 6th Annual

Symposium on Nonlinear Estimation Theory and Its Applications, September 1975.

12. Lee, K. Y. and D. M. Kim, "A Dynamic Microeconomic Model for Korean Farms," International Conference on Cybernetics and Society, pp. 88-91, September 1975. Proc.

13. Lee, K. Y., "Optimal Coefficient Control of Distributed Parameter Systems," Proc. IEEE Conference on Decision and Control, pp. 366-370, December 1975.

- 14. Lee, K. Y. "Optimal Estimation of First Order Distributed Systems: Multiplicity and Martingale
- Approach," Proc. Joint Automatic Control Conference, pp. 634-636, July 1976.
 Clary, J. W. and K. Y. Lee, "Stochastic Theory of Minimal Realization," Proc. IEEE Conference on Decision and Control, pp. 1268-1275, December 1976.
- 16. Lee, K. Y., "On the Estimation of Distributed Systems with Uncertain Parameters," Proc. IEEE
- Conference on Decision and Control, pp. ll28A-ll28C, December 1976.

 17. Lee, K. Y., "Modeling and Estimation of Distributed Systems with Uncertain Parameters" (Invited Paper) Proc. IFIP Working Conference on Distributed Parameter Systems: Modeling and Identification, Rome, Italy, pp. 325-334, June 1976.
- 18. Lee, K. Y., "Bilinear Distributed Parameter Sytstems and Pest Control" (Invited Paper), <u>Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Proc. U.S. Italy Seminar on Recent Advances in Variable Structural Systems Theory with Applications in Variable Structural Systems Theory with Applications in Variable Structural Systems Theory Structural Systems Theory with Applications in Variable Structural Systems Theory Systems Th</u>
- Bilogy and Socio-Economics, Taormina, Italy, pp. 173-188, September 1977.

 Gardner, G. C., E. C. Tacker and K. Y. Lee, "Toward Optimal Decision Making for Material Maintenance Systems," Proc. IEEE Conference on Decision and Control, pp. 195-197, December
- Lee, K. Y., "Multiplicity and Martingale Approach to Infinite Dimensional Estimation," <u>Proc. IEEE Conference on Decision and Control</u>, pp. 450-454, December 1977.
 Lee, K. Y. and S. A. Houssain, "Use of Predictive Controller in Automatic Generation Control," <u>Proc. IEEE Control of Power Systems Conference and Exposition</u>, pp. 53-55, March 1978.
- Lee, K. Y. and J. W. Clary, "Optimal Control of Bilinear Distributed Parameter Systems," <u>Proc. 17th IEEE Conference on Decision and Control</u>, pp. 886-89l, January 1979.
- Houssain, S. A. and K. Y. Lee, "Optimal Predictive Control of Synchronous Generators," Proc. 17th IEEE Conference on Decision and Control, pp. 886-89l, January 1979.

 Lee, K. Y., D. P. Dave and C. W. Taylor, "Automatic Generation Control Analysis with Aggregate
- Deadband Effects," IEEE 1979 Power Engineering Society Winter Meeting, preprint #F79 208-0, New York, NY, February 1979.
- 25. Hassouneh, A. S. and K. Y. Lee, "Load Flow Analysis of Power System Distribution Planning and System Modifications," <u>Proc. 10th Annual Pittsburgh Conference on Modeling and Simulation</u>, pp. 997-1001, April 1979.
- 26. Lee, K. Y. and T. G. Cooper, "Coordinated Control of Distributed Parameter Systems," Proc. 18th
- IEEE Conference on Decision and Control, pp. 665-667, December 1979.

 Trefny, F. J. and K. Y. Lee, "Economic Fuel Dispatch," IEEE 1980 Power Engineering Society Winter Meeting, preprint #A80 033-l, New York, NY, February 1980.

 Trefny, F. J. and K. Y. Lee, "Economic Fuel Dispatch," Proc. IEEE Control of Power Systems

 Conference on Decision and Control, pp. 665-667, December 1979.

 Trefny, F. J. and K. Y. Lee, "Economic Fuel Dispatch," Proc. IEEE Control of Power Systems

- Conference, pp. 56-64, April 1980.
 Lee, K. Y. and M. Malti, "State Estimation of an Interconnected System," Proc. 1981 Joint Automatic Control Conference, #FP-7C, University of Virginia, June 17-18, 1981.
 Lee, K. Y. and F. J. Trefny, "Optimal Allocation of Fuel for Power Systems Under Multiple Contractual Constraints," Proc. the ORSA-TIMS Joint National Meeting, #TC08.2, Houston, TX, October 11-14, 1981
- 31. Lee, K. Y. and T. G. Cooper, "Distributed Parameter System Decomposition and Coordination,"
- Proc. 20th IEEE Conference on Decision and Control, pp. 1305-1306, December 1981.

 32. Lee, K. Y. and F. J. Meyer, "Improved Dynamic Load Model for Power System Stability Studies," 1982 IEEE Winter Power Meeting, New York, NY, January 31-February 5, 1982, preprint #82WM126-1.
- 33. Lee, K. Y. and S. M. Sombar, "A Microcomputer System for Determining the Dynamic Equivalent of a Synchronous Generator," Proc. the 6th IFAC Symposium on Identification and System Proc. the 6th IFAC Symposium on Identification and System Parameter Estimation, pp. 1449-1453, 1982.
- 34. Lee, K. Y. and S. M. Bittar, "Identification of Distributed Parameter Systems Using Finite Element Approximation," Proc. 1982 American Control Conference, pp. 433-434, 1982.
- 35. Lee, K. Y. and T. G. Cooper, "Coordinated Control of Stochastic Distributed Parameter Systems," Proc. 21st IEEE Conference on Decision and Control, Orlando, FL, December 8-10, 1982.
- Park, Y. M., K. Y. Lee and L.T.O. Youn, "Optimal Long-Term Generation Investment Planning," Proc. 1983 IEEE Region 5 Conference, pp. 108-113, 1983.
- 37. Park, Y. M. and K. Y. Lee, "Optimal Decentralized Load-Frequency Control," Proc. the 9th World

Congress of IFAC, Budapest, Hungary, July 2-6, 1984, pp. 174-179.
Park, Y. M., K. Y. Lee and L.T.O. Youn, "Optimization Technique for Long-Term Generation Expansion Planning," <u>Proc. the 9th World Congress of IFAC</u>, Budapest, Hungary, July 2-6, 1984,

Park, Y. M., K. Y. Lee and L.T.O. Youn, "New Analytical Approach for Long-Term Generation Expansion Planning Based on Maximum Principle and Gaussian Distribution Function." IEEE Summer Power Meeting, Seattle Washington, July 15-20, 1984, preprint #84SM592-2.

- 40. Lee, K. Y., Y. M. Park and J. L. Ortiz, "A United Approach to Optimal Real and Reactive Power IEEE Summer Power Meeting, Seattle, Washington, July 15-20, 1984, -preprint #84SM572-4.
- 41. Lee, K. Y., J. L. Ortiz and Y. M. Park, "Optimal Reactive Power Planning," IEEE Summer Power Meeting, Vancouver, Canada, July 15-19, 1985, preprint #85SM487-4.

 42. Lee, K. Y., L.T.O. Youn and Y. M. Park, "Optimization Technique for Long-Term Generation
- Expansion Planning Including Hydro Plants Based on Analytical Production Costing Model," Proc.
- Expansion Planning Including Hydro Plants Based on Analytical Production Costing Model," Proc. the IFAC Symposium on Planning and Operation of Electric Energy Systems, Rio De Janeiro, Brazil, July 22-25, 1985, pp. 153-158.
 43. Lee, K. Y., D. Walker and S. A. Hossain, "Structural Parameter Identification of Distributed Systems Using Finite Element Approximation" (Invited Paper), Proc. 24th IEEE Conference on Decision and Control, Fort Lauderdale, FL, December Il-13, 1985, pp. 1145-1150.
 44. Lee, K. Y. and S. A. Hossain, "System Identification of Distributed Parameter Systems Applied to Seismic Inverse Problem" (Invited Paper), Proc. 24th IEEE Conference on Decision and Control, Fort Lauderdale, FL, December Il-13, 1985, pp. Il39-Il44.
 45. Lee, B. Y., Y. M. Park and K. Y. Lee, "Optimal Generation Planning for Thermal and Pumped-Storage System Based on Analytical Production Costing Model." IEEE Summer Power Meeting
- Storage System Based on Analytical Production Costing Model," IEEE Summer Power Meeting, Mexico City, July 20-25, 1986, preprint #86SM301-6.
- Park, Y. M., B. H. Kim, R. T. Lee and K. Y. Lee, "Anticipatory Generation Control of Fossil Power Plant for Electric Arc Furnaces and Rolling Mills," <u>Proc. IFAC Symposium on Power Systems and</u>
- Power Plant Control, Beijing, China, August 13-16, 1986, pp. 203-209.

 47. Lee, K. Y., J. L. Ortiz, M. A. Mohtadi and Y. M. Park, "Optimal Operation of Large-Scale Power Systems," <u>IEEE Winter Power Meeting</u>, New Orleans, LA, Feb. 1-6, 1987, preprint #87WM064-9.
- Rowland, J. D. and K. Y. Lee, "Controlling Secondary Selective Substations Using Programmable Controllers", Proc. 1987 IEEE Industrial Society Annual Meeting, Atlanta, GA, October 18-23, 1987, pp. 1158-1165.
- 49. Hossain, S. A. and K. Y. Lee, "System Identification for Space Control Laboratory Experiment
- Hossain, S. A. and K. Y. Lee, "System Identification for Space Control Laboratory Experiment (SCOLE) Using Distributed Parameter Models", Proc. 26th IEEE Conference on Decision and Control, Los Angeles, CA, December 9-11, 1987, pp. 1263-1268.
 Kim, K. J., Y. M. Park and K. Y. Lee, "Optimal Long-Term Transmission Expansion Planning Based on Maximum Principle," IEEE Power Engineering Society Winter Meeting, New York, N.Y., January 31-February 5, 1988, preprint #88WM180-2.
 Lee, K. Y., S. A. Hossain and V. B. Venkayya, "System Identification of Flexible Structures," Proc. 29th Structures, Structural Dynamics, and Materials Conference, AIAA/ASME/ASCE/AHS, Williamsburg, VA, April 18-20,1988, Part 3, pp. 1202-1209.
 Beekman, R. W. and K. Y. Lee, "Nonlinear Robotic Control Including Drive Motor Interactions," Proc. 1988 American Control Conference, Atlanta, GA, June 15-17, 1988, Vol. 2, pp. 1333-1338.
 Desai, P. K. Y. Lee, and T. Potter, "A Decentralized Minimum State Error Variance Controller for

- 53. Desai, P., K. Y. Lee and T. Potter, "A Decentralized Minimum State Error Variance Controller for Large Flexible Space Structures," Proc. 1989 American Control Conference, Pittsburgh, PA, June 21-23, 1989, Vol. 2, pp. 1642-1644.
 54. Munshi, C. J., A. K. Mahalanabis and K. Y. Lee, "Stochastic Pole Placement Control of Robot Manipulators using an Extended Kalman Filter," Proc. 1989 American Control Conference, Pittsburgh, PA, June 2012 22, 1080 Vol. 2, pp. 1633-1680.
- Pittsburgh, PA, June 21-23, 1989, Vol. 3, pp. 2333-2336.

 55. Lee, K. Y., Y. T. Cha, B. H. Lee and J. H. Kim, "Security Based Economic Operation of Electric
- Power System," Proc. IFAC International Symposium on Power Systems and Power Plant Control,
- Seoul, Korea, August 22-25, 1989, pp. 566-571.

 56. Kim, J. H., Y. M. Park and K. Y. Lee, "Analysis of Power System Dynamics using Nonlinear Transition Matrix," Proc. IFAC International Symposium on Power Systems and Power Plant Control, Seoul, Korea, August 22-25, 1989, pp. 917-922.
- 57. Lee K. Y. and A. B. Eddrief, "Optimal Design of an Automatic Voltage Regulator for Static Var Systems," <u>Proc. IFAC International Symposium on Power Systems and Power Plant Control</u>, Seoul, Korea, August 22-25, 1989, pp. 971-976.

 58. Edwards, R. M., K. Y. Lee, S. Kumara and S. H. Levine, "An Integrated Real-Time Diagnostic

Concept using Expert Systems, Qualitative Reasoning and Quantitative Analysis," Proc. Korea-USA Joint Seminar on Expert Systems for Electric Power Systems, Seoul, Korea, August 14-18, 1989, pp. 281-312.

59. Lee, K. Y., A. J. de la Torre and R. W. Beekmann, "Decoupled Nonlinear Robotic Control with Series Compliance and Bounded Inputs," <u>Proc. the 28th IEEE Conference on Decision and Control</u>,

Tampa, FL, December 13-15, 1989, Vol. 1, pp. 712-715.

60. Lee, K. Y., Y. T. Cha and J. H. Park, "Artificial Neural Network Methodology for Short-Term Load Forecasting," Proc. NSF Workshop on Artificial Neural Network Methodology in Power Systems Engineering, April 9-10, 1990, Clemson, NC, pp. 109-113.

61. Lee, K. Y., A. J. de la Torre and R. W. Beekman, "Optimal Decision Control for Robot with Series Compliance and Bounded Inputs," Proc. 1991 American Control Conference, San Diego, CA, May

23-25, 1990, pp. 1250-1255.

- 62. Lee, K. Y. and Y. M. Park, "Analytical Production Cost Model Using Gaussian Probability Distribution Functions," Proc. EPRI International Conference on Applications of Power Production Simulation, June 11-13, 1990, Washington, DC.
 63. Park, J. H., Y. M. Park and K. Y. Lee, "Composite Modeling for Adaptive Short-Term Load Forecasting," IEEE Processing Society Summer Meeting, Minneapolis, MN, July 15-19, 1990.
- 1990, preprint #90SM 378-0 PWRS.
- 64. Reyes, R. I., D. R. Mudgett and K. Y. Lee, "Power System Stabilization via Additive Multiple Adaptive Controller," Proc. 29th IEEE Conference on Decision and Control, Honolulu, HI, December 5-7, 1990, pp. 3077-3082.
 65. Lee, K. Y., Y. T. Cha and J. H. Park, "Short-Term Load Forecasting Using an Artificial Neural
- Network," IEEE Power Engineering Society Winter Meeting, New York, NY, February 3-7, 1991, preprint #91WM 199-0-PWRS.
- Lee, B. H. and K. Y. Lee, "A Study on Voltage Collapse Mechanism in Electric Power Systems," IEEE Power Engineering Society Winter Meeting, New York, NY, February 7, 1991, preprint #91 WM 123-0-PWKS.
- 67. Edwards, R. M., A. Ben-Abdennour and K. Y. Lee, "Robust Control Design Verification Using the MMS," Proc. 1991 EPRI Conference on Power Plant & Power System Training Simulators & Modeling, April 17-19, 1991, Miami, FL.

- Modeling, April 17-19, 1991, Miami, FL.
 Lee, K. Y., Y. T. Cha and C. C. Ku, "A Study on Neural Networks for Short-Term Load Forecasting," Proc. lst International Forum on Applications of Neural Networks to Power Systems, pp. 26-30, June 23-26, 1991, Seattle, WA.
 Lee, K. Y., "Modeling the Uncertainties in Demand and Supply Using Gaussian Distribution Function," Proc. NSF/EEI Workshop on Research Needs for Coping with Uncertainty in Power Systems, July 15-17, 1991, Norman, OK, pp. 130-147.
 Lee, B. H., K. Y. Lee and Y. M. Park, "Analysis and Control of Static and Dynamic Voltage Stabilities," Proc. NSF International Workshop on Bulk Power System Voltage Phenomena: Voltage Stability and Security, August 4-7, 1991, Deep Creek Lake, MD.
 Ben-Abdennour, A., R. M. Edwards and K. Y. Lee, "MIMOML Robust Control for Accommodating EBR-II Feedwater System Faults," Proc. AI91: Frontiers in Innovative Computing for the Nuclear Industry, September 15-17, 1991, Jackson, WY, Vol. II, pp. 899-907.
 Park, Y. M., J. H. Lee, D. H. Kim and K. Y. Lee, "A Knowledge-Based System for Reactive Power/Voltage Control Based on Pattern Recognition and Set of Indices," Proc. International Conference on Power System Technology 1991, September 13-17, 1991, Beijing, China, pp. 268-Conference on Power System Technology 1991, September 13-17, 1991, Beijing, China, pp. 268-
- 73. Edwards, R. M., R. W. Lindsay, H. E. Garcia, J. A. Turso, N. C. Messick, C. M. Chavez, P. B. Walter, A. Ben-Abdennour, K. Y. Lee, A. Ray, and E. H. Klevans, "Demonstration of Intelligent Distributed Control at EBR-II," International Conference on Design and Safety of Advanced Nuclear Power Plants, December 1991.

74. Lee, B. H. and K. Y. Lee, "Dynamic and Static Voltage Stability Enhancement of Power Systems," IEEE Power Engineering Society Winter Meeting, New York, NY, January 26-30, 1992, #92WM 112-3-PWRS.

- 75. Ku, C. C. and K. Y. Lee, "Nonlinear Systems Identification Using Diagonal Recurrent Neural Network," Proc. IJCNN International Joint Conference on Neural Networks, Baltimore, MD, June 7-11, 1992, Vol. III, pp. 839-844.
- 76. Ku, C. C. and K. Y. Lee, "Diagonal Recurrent Neural Networks for Nonlinear System Control," Proc. IJCNN International Joint Conference on Neural Networks, Baltimore, MD, June 7-11, 1992, Vol. I, pp. 315-320.

 77. Ku, C. C., and K. Y. Lee, "Diagonal Recurrent Neural Network for System Identification and

- Control," <u>Proc. 1992 American Control Conference</u>, Chicago, IL, June 24-26, 1992, pp. 545-549. Ben-Abdennour, A., K. Y. Lee and R. M. Edwards, "Multivariable Robust Control of a Power Plant Deaerator," IEEE Power Engineering Society Summer Meeting, Seattle, WA, July 12-16, 1992, #92SM514-0-EC.
- 79. Ku, C. C. and K. Y. Lee, "Diagonal Recurrent Neural Network Based Control using Adaptive Learning Rates," Proc. the 31st IEEE Conference on Decision and Control, Tucson, AZ, December 16-18, 1992, pp. 3485-3490.
- 80. Edwards, R. M., H. E. Garcia, J. A. Turso, C. M. Chavez, A. Ben-Abdennour, C. K. Weng, C. C. Ku, A. Ray and K. Y. Lee, "Advanced Control Research at Penn State," Proc. EPRI Conference on Advanced Digital Computers, Controls, and Automation Technologies for Power Plants, San Diego,
- CA, February 5-7, 1992.

 81. Ku, C. C., K. Y. Lee and R. M. Edwards, "Diagonal Recurrent Neural Network for Nuclear Power Plant Control," Proc. the 8th Power Plant Dynamics, Control & Testing Symposium, Knoxville, TN, May 27-29, 1992, pp. 61.01-61.14.
- May 27-29, 1992, pp. 61.01-61.14.

 Ben-Abdennour, A., K. Y. Lee, and R. M. Edwards, "Feedwater System Fault Accommodation Using LQG/LTR Robust Control," Proc. the 8th Power Plant Dynamics, Control & Testing Symposium, Knoxville, TN, May 27-29, 1992, pp. 83.01-83.14.

 Khaldi, M. R., A. K. Sarkar, K. Y. Lee and Y. M. Park, "The Modal Performance Measure for Parameter Optimization of Power System Stabilizer," IEEE Power Engineering Society Winter Meeting, January 31-February 5, 1993, #93 WM127-1-EC.

 Edwards, R. M., K. Y. Lee, A. Ben-Abdennour, C. C. Ku, and P. Ramaswamy, "A Comparative Study for Nuclear Reactor Controller Design Using Optimal Control, Robust Control, Neural Network, and Fuzzy Logic Control." Proc. American Nuclear Society Topical Meeting on Nuclear
- Network, and Fuzzy Logic Control," <u>Proc. American Nuclear Society Topical Meeting on Nuclear Plant Instrumentation, Control, and Man-Machine Interface Technologies</u>, April 1993, Oak Ridge, TN, pp. 153-160.
- 85. Ku, C. C. and K. Y. Lee, "Diagonal Recurrent Neural Network for Controller Designs, Proc. of the Second International Forum on Applications of Neural Networks to Power Systems, April 19-22, 1993, Yokohama, Japan, pp. 87-92.
- 86. Ku, C. C., K. Y. Lee and R. M. Edwards, "Validation and Verification of Diagonal Neural Controller for Nuclear Power Plant," Proc. of the Second International Forum on Applications of Neural Networks to Power Systems, April 19-22, 1993, Yokohama, Japan, pp. 343-348.
- Lee, K. Y., T. I. Choi, C. C. Ku, and J. H. Park, "Short-Term Load Forecasting Using Diagonal Recurrent Neural Network," Proc. of the Second International Forum on Applications of Neural
- Networks to Power Systems, April 19-22, 1993, Yokohama, Japan, pp. 227-232.

 88. Ramaswamy, P., R. M. Edwards, and K. Y. Lee, "Fuzzy Logic Controller for Nuclear Power Plant,"
- Ramaswamy, P., R. M. Edwards, and K. Y. Lee, "Fuzzy Logic Controller for Nuclear Power Plant,"
 <u>Proc. of the Second International Forum on Applications of Neural Networks to Power Systems, April 19-22, 1993, Yokohama, Japan, pp. 29-34.</u>
 Ramaswamy, P., R. M. Edwards, and K. Y. Lee, "A Fuzzy Logic Controller Design for Nuclear Power Plant," <u>Proc. of the 12th World Congress of International Federation of Automatic Control, July 19-23, 1993, Vol. 5, pp. 103-106.</u>
 Ku, C. C., K. Y. Lee, and R. M. Edwards, "Nuclear Reactor Control Using Diagonal Recurrent Neural Networks," <u>Proc. of the 12th World Congress of International Federation of Automatic Control, July 19-23, 1993, Vol. 6, pp. 267-270.</u>
 Ramaswamy, P., M. Riese, R. M. Edwards, and K. Y. Lee, "Two Approaches for Automating the Tuning Process of Fuzzy Logic Controllers," <u>Proc. of the 32nd IEEE Conference on Decision and Control, San Antonio, TX, December 15-17, 1993, pp. 1573-1578.</u>
 Wu, Z., V. K. Varadan, V. V. Varadan, and K. Y. Lee, "Active Absorption of Acoustic Wave Using
- Wu, Z., V. K. Varadan, V. V. Varadan, and K. Y. Lee, "Active Absorption of Acoustic Wave Using State-Space Control," Proc. of the 1994 North American Conference on Smart Structures and Materials, February 13-18, 1994, Orlando, FL, Session 5, 2189-22.
- Ku, C. C. and K. Y. Lee, "Diagonal Recurrent Neural Network-Based Control: Convergence and Stability," Proc. of the 1994 American Control Conference, pp. 3340-3345, Baltimore, MD, June 29 - July 1, 1994.
- 94. Park, Y. M., U. C. Moon, and K. Y. Lee, "Self Organization of Fuzzy Logic Controller Using Fuzzy Auto-Regressive Moving Average (FARMA) Model," Proc. of the 1994 American Control Conference, pp. 185-189, Baltimore, MD, June 29 - July 1, 1994.
- Dimeo, R. M. and K. Y. Lee, "Genetic-Based Control of a MIMO Boiler-Turbine Plant," Proc. of the 33rd IEEE Conference on Decision and Control, pp. 3512-3517, Lake Buena Vista, FL, December 14-16, 1994.
- Bass, E. and K. Y. Lee, "A Modified Radial Basis Function Network for System Identification," Proc. of IEEE International Symposium on Intelligent Control, pp. 352-357, Columbus, OH, August

16-18, 1994.

97. Bass, E. and K. Y. Lee, "Robust Control of Nonlinear Systems Using Norm-Bounded Neural Networks," Proc. of the IEEE Conference on Neural Networks, pp. 2524-2529, IEEE World Congress on Computational Intelligence, Orlando, FL, June 26 - July 2, 1994.

98. Lee, K. Y., T. I. Choi, C. C. Ku, and J. H. Park, "Neural Network Architectures for Short-Term Load Forecasting," <u>Proc. of the IEEE Conference on Neural Networks</u>, pp. 4724-4729, IEEE World Congress on Computational Intelligence, Orlando, FL, June 26 - July 2, 1994.

99. Bass, E. and K. Y. Lee, "System Linearization with Guaranteed Stability Using Norm-Bounded Neural Networks," Proc. of the IEEE Conference on Neural Networks, pp. 2355-2360, IEEE World Congress on Computational Intelligence, Orlando, FL, June 26 - July 2, 1994.

- 100. Park, Y. M., M. S. Choi, and K. Y. Lee, "A Decentralized Control Architecture for Nonlinear Systems Using Multilayer Feedforward Networks," Proc. of the IEEE Conference on Neural Networks, pp. 2568-2573, IEEE World Congress on Computational Intelligence, Orlando, FL, June
- 26 July 2, 1994.

 101. Lee, K. Y., X. Bai, Y. M. Park, and H. S. Kwon, "A Modified Algorithm for Economic Dispatch Computation." Proceedings of the International Conference on Power System Technology, pp. 220-226. Proc. of the International Conference on Power System Technology, pp. 230-236, Computation," Beijing, China, October 18-21, 1994.
- 102. Park, Y. M., M. S. Choi, and K. Y. Lee, "A Diagonal Recurrent Neural Network Based Decentralized Control Architecture for Power System Stabilization," Proc. of the International

Conference on Power System Technology, pp. 939-943, Beijing, China, October 17 - 21, 1994.

103. Park, Y. M., U. C. Moon, and K. Y. Lee, "A New Approach for Self-Organization of Fuzzy Logic Controller,"

Proc. of the International Conference on Intelligent System Application to Power

Systems, pp. 827-831, Montpellier, France, September 5-9, 1994.

- 104. Park, J. H., H. S. Lee, K. H. Kim, J. K. Park, Y. M. Park, and K. Y. Lee, "Neural Network Application to Bad Data Detection Using Auto Regressive Filters in Power Systems," Proc. of International Conference on Intelligent System Application to Power Systems, pp. 601-607, Montpellier, France, September 5-9, 1994.
- 105. Park, Y. M., M. S. Choi, and K. Y. Lee, "A Decentralized Control Architecture Using Multilayer Feedforward Neural Networks for Power System Stabilization," Proc. of International Conference on Intelligent System Application to Power Systems, pp. 305-311, Montpellier, France, September 5-9, 1994.
- 106. Lee, K. Y., X. Bai, and Y. M. Park, "Optimization Method for Reactive Power Planning Using a Genetic Algorithm, IEEE Power Engineering Society Winter Meeting, New York, NY, #95 WM
- 133-9 PWRS, January 29 February 2, 1995. 107. Maloy, R. K., K. Y. Lee, and L. H. Sibul, "A Pursuit-Evasion Differential Game in Relative Polar Coordinates with State Estimation, Proc. American Control Conference, pp. 2463-2467, Seattle, WA, June 21-23, 1995.
- 108. Park, Y. M., M. S. Choi, and K. Y. Lee, "An Optimal Tracking Controller for Nonlinear Dynamic Systems Using Multilayer Neural Networks," Proc. American Control Conference, pp. 4280-4284,
- Seattle, WA, June 21-23, 1995.

 109. Edwards, R. M., K. Y. Lee, and D. E. Hughes, "An Experimental Testbed for Advanced Digital Nuclear Reactor Control," Fifth International Joint ISA POWID/EPRI Controls and Instrumentation Conference, pp. 235-243, LaJolla, CA, June 19-21, 1995.
- 110. Lee, K. Y. and R. M. Edwards, "Curriculum for Development of Power Plant Intelligent Distributed Control," <u>ASEE Annual Conference Proceedings</u>, Session 1697, pp. 1065-1071, Anaheim, CA, June 25-28, 1995.
- 111. Lukas, M. D., H. Ghezelayagh, and K. Y. Lee, "An MMS Based Commercial Power Distributed Simulation and Control," Proc. Power Plant Dynamics, Control & Testing Symposium, pp. 1.01-1.13, Knoxville, TN, May 24-26, 1995.
- 112. Zhao, Y., R. M. Edwards, and K. Y. Lee, "Distributed Real-Time Simulation Approach for Large Scale Systems," Proc. Power Plant Dynamics, Control & Testing Symposium, pp. 34.01-34.03, Knoxville, TN, May 24-26, 1995.
- 113. Power, M. A., R. M. Edwards, and K. Y. Lee, "Implementation and Results from Robust Control Experiments on a Nuclear Reactor," Proc. Power Plant Dynamics, Control & Testing Symposium, pp. 30.01-30.15, Knoxville, TN, May 24-26, 1995.
- 114. Zhao, Y., R. M. Edwards, and K. Y. Lee, "Optimized Wide-Range Robust Control for a Nuclear Power Plant," Proc. Power Plant Dynamics, Control & Testing Symposium, pp. 34.01-34.03, Knoxville, TN, May 24-26, 1995.Ben-Abdennour, A. and K. Y. Lee, "Power Plant Fault Diagnosis and Accommodation Using Analytical Redundancy and Artificial Intelligence," Proc. Power Plant Dynamics, Control & Testing Symposium, pp. 57.01-57.12, Knoxville, TN, May 24-26, 1995.

- 116. Ramaswamy, P., R. M. Edwards, and K. Y. Lee, "Performance Evaluation of Diagonal Recurrent Neural Network and Fuzzy Logic Controllers in Nuclear Reactor Control," Proc. Power Plant Dynamics, Control & Testing Symposium, pp. pp. 65.01-65.11, Knoxville, TN, May 24-26, 1995.
- 117. Dimeo, R. and K. Y. Lee, "The Use of Genetic Algorithm in Power Plant Control System Design," Proc. 34th IEEE Conference on Decision and Control, pp. 737-742, New Orleans, LA, December 13-15, 1995.
- 118. Ben-Abdennour, A. and K. Y. Lee, "Coordinated Intelligent Control for Normal and Faulty Power Plant Operation," Proc. IFAC Symposium on Control of Power Plants and Power Systems, pp. 101-106, Cancun, Mexico, December 6-8, 1995.
- 119. Lukas, M. D., H. Ghezel-ayagh, K. Y. Lee, R. M. Edwards, and H. Nam, "Distributed Simulation of Fossil Fuel Power Plant Using the Modular Modeling System (MMS)," Proc. IFAC Symposium on Control of Power Plants and Power Systems, pp. 131-136, Cancun, Mexico, December 6-8, 1995.
- 120. Park, Y. M., U. C. Moon, and K. Y. Lee, "A Self-Organizing Fuzzy Logic Controller for Power System Stabilization," Proc. IFAC Symposium on Control of Power Plants and Power Systems, pp.
- 25-30, Cancun, Mexico, December 6-8, 1995.
 121. Ben-Abdennour, A. and K. Y. Lee, "A Decentralized Controller Design for a Power Plant Using Robust Local Controllers and Functional Mapping," <u>IEEE Power Engineering Society Winter Meeting</u>, #96WM025-7-EC, Baltimore, MD, January 21-25, 1996.
 122. Ben Abdennour, A. and K. Y. Lee, "An Autonomous Control System for Boiler-Turbine Units," <u>IEEE Power Engineering Society Winter Meeting</u>, #96WM026-5-EC, Baltimore, MD, January 21-25, 1006.
- 25. 1996.
- 123. Park, Y. M., M. S. Choi, J. W. Lee, B. H. Kim, and K. Y. Lee, "An Auxiliary LQG/LTR Robust Controller Design for Cogeneration Plants," <u>IEEE Power Engineering Society Winter Meeting</u>, #96WM027-3-EC, Baltimore, MD, January 21-25, 1996.
- 124. Park, Y. M., M. S. Choi, and K. Y. Lee, "A Neural Network-Based Power System Stabilizer Using Power Floor Characteristics," <u>IEEE Power Engineering Society Winter Meeting</u>, #96WM036-4-EC, Baltimore, MD, January 21-25, 1996.
- 125. Park, Y. M., U. C. Moon, and K. Y. Lee, "A Self-Organizing Power System Stabilizer Using Fuzzy Auto-Regressive Moving Average (FARMA) Model," <u>IEEE Power Engineering Society Winter</u> Meeting, #96WM037-2-EC, Baltimore, MD January 21-25, 1996.
- 126. Ben-Abdennour A., and K. Y. Lee, "Improving Boiler Performance During Partial Load Rejections Using a Mixed Fuzzy Logic and LQG/LTR Approach," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 304-308, Orlando, FL, January 23-February $2, \overline{1996}$.
- 127. Park, Y. M., M. S. Choi, and K. Y. Lee, "A Wide Range Operation Power System Stabilizer Design with Neural Networks Using Power Flow Characteristics," <u>Proc. International Conference on Intelligent Systems Applications to Power Systems</u>, pp. 294-298, Orlando, FL, January 28-February 2, 1996.
- 128. Park, Y. M., U. C. Moon, and K. Y. Lee, "A Power System Stabilization with a Self-Organizing Fuzzy Logic Controller," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 114-118, Orlando, FL, January 28-February 2, 1996.
 129. Ben-Abdennour, A. and K. Y. Lee, "Supervisory Control with Fault Detection and Accommodation Capabilities for Upgrading Fossil Fuel Power Plant Control: a Mixed Fuzzy Logic and LQG/LTR
- Approach," Proc. of the 1996 American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technologies, NPIC & HMIT '96, pp. 335-342, University Park, May 6-9, 1996.
- 130. Lukas, M. D., H. Ghezelayagh, and K. Y. Lee, "A Power Plant Distributed Real Time Simulator with Graphical User Interface," Proc. of the 1996 American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technologies, NPIC & HMIT '96, pp. 327-334, University Park, May 6-9, 1996.
- 131. Zhao, Y., K. Y. Lee, and R. M. Edwards, "Optimized Feedforward and Feedback Control for Steam Generatory Systems Using Genetic Algorithm for Wide-Range Applications," Proc. of the 1996 American Nuclear Society International Topical Meeting of Nuclear Plant Instrumentation, Control and Human Machine Interface Technologies, NPIC & HMIT '96, pp. 19-24 University Park, May 6-
- 132. Edwards, R. M., K. Y. Lee, and D. E. Hughes, "A Testbed for Nuclear Plant Instrumentation and Control Validation," Proc. of the 1996 American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technologies, NPIC & HMIT '96, pp. 287-294, University Park, May 6-9, 1996.

 133. Lee, Y. Y., and R. M. Edwards, "Combined Research and Curriculum Development for Power Plan

Intelligent Distributed Control," Proc. of the 1996 ASEE Annual Conference, Session 1926, 11 pages (on CD ROM), Washington, DC, June 23-26, 1996.pp. 287.

134. Lee, Y. Y., J. Y. Yacoub, and Y. M. Park, "Optimal Coordinated Control of Power Plants," Proc. of 13th IFAC World Congress, Vol. O, pp. 151-156, San Francisco, CA, June 30 - July 5, 1996.

135. Park, Y. M., M. S. Choi, J. W. Lee, B. H. Kim, and K. Y. Lee "LQG/LTR Robust controller Design

- for Disturbance Rejection in a Cogeneration Plant," Proc. of 13th IFAC World Congress, Vol. O, pp. 91-96, San Francisco, CA, June 30-July 5, 1996.
- 136. Park, Y. M., U. C. Moon, and K. Y. Lee, "A Power System Stabilization with an Adaptive Fuzzy Logic Controller," Proc. 35th IEEE Conference on Decision and Control, pp. 2191-2195, Kobe, Japan, December 1996.
- 137. Lukas, M. D., H. Ghezelayagh, and K. Y. Lee, "An Interactive Distributed Simulator for Commercial Power Plant," IEEE Power Engineering Society Winter Meeting, # PE-551-EC-0-11-
- Commercial Power Plant," <u>IEEE Power Engineering Society Winter Meeting</u>, # PE-551-EC-0-11-1996, New York, NY, February 2-6, 1997.
 138. Lee, K. Y., A. Sode-Yome, and J. H. Park, "Adaptive Hopfield Neural Networks for Economic Load Dispatch," <u>IEEE Power Engineering Society Winter Meeting</u>, #PE-217-PWRS-0-01-1997, New York, NY, February 2-6, 1997.
 139. Arslan, G. and K. Y. Lee, "Stability Analysis of a Fuzzy Logic Controller," <u>Proc. of 1997 American Control Conference</u>, pp. 3301-3305, Albuquerque, NM, June 4-6, 1997.
 140. Lee, "Intelligent Distributed Control of Power Plants," Panel on Intelligent Control Advances, <u>Proc. International Conference on Advanced Power System Control & Optimization Method (APSCOM)</u>, Vol. 1, pp. 66-71, Hong Kong, November 11-14, 1997.
 141. Batzel, T. D. and K. Y. Lee, "Commutation Torgue Ripple Minimization for Permanent Magnet Synchronous Machines with Hall Effect Position Feedback" IEEE PES Summer Meeting #PE-

- Synchronous Machines with Hall Effect Position Feedback," <u>IEEE PES Summer Meeting</u>, #PE-959A-EC-0-05-1997, Berlin, July 20-24, 1997, and accepted for publication in <u>IEEE Transactions</u> on Energy Conversion
- 142. Lee, K. Y., A. Sode-Yome, and J. H. Park, "Tuning of Hopfield Neural Networks for Economic Load Dispatch," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 480-484, Seoul, Korea, July 6-7, 1997.
- 143. Lee, K. Y., F. M. Nuroglu, and A. Sode-Yome, "Real Power Optimization with Load flow Using Adaptive Hopfield Neural Network," <u>Proc. International Conference on Intelligent Systems</u> Applications to Power Systems, pp. 490-494, Seoul, Korea, July 6-10, 1997.

 144. Batzel, T. D. and K. Y. Lee, "Rotor Angle Estimation for Permanent Magnet Synchronous
- Machines with Hall Effect Position Sensors using Neural Networks," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 583-587, Seoul, Korea, July 6-10, 1997.
- 145. Lee, K. Y. and F. F. Yang, "Optimal Reactive Power Planning Using Evolutionary Algorithms," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 397-401,
- Seoul, Korea, July 6-10, 1997.

 146. Garduno-Ramirez, R. and K. Y. Lee, "Fuzzy Supervisor for Power Plant Cyclic Operation," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 431-435, Seoul, Korea, July 6-10, 1997.

 147. Santra, R. and K. Y. Lee, "Boiler-Turbine Control System Design Using Modified Genetic
- Algorithms," <u>Proc. International Conference on Intelligent Systems Applications to Power Systems</u>, pp. 415-419, Seoul, Korea, July 6-10, 1997.
- 148. Park, Y. M., J. H. Lee, S. H. Hyun, and K. Y. Lee, "A Power System Stabilizer Based on Universal Model," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 99-103, Seoul, Korea, July 6-10, 1997.
- 149. Lee, T. H. and K. Y. Lee, "Application of CMAC for Short-Term Load Forecasting," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 372-377, Seoul, Korea, July 6-10, 1997.
- 150. Park, Y. M., M. S. Choi, and K. Y. Lee, "A New Approach to Neural Network based Receding Horizon Optimal Control with Applications to Power Plants," Proc. International Conference on Intelligent Systems Applications to Power Systems, pp. 420-424, Seoul, Korea, July 6-10, 1997.
- 151. Lee, K. Y., M. Perakis, D. R. Sevcik, N. I. Santoso, G. K. Lausterer, and T. Samad, "Intelligent Distributed Simulation and Control of Power Plant," IEEE PES Winter Meeting, #PE-508-EC-0-1-1998, Tampa, FL, February 1-5, 1998 and accepted for publication in <u>IEEE Transactions on Energy</u>
- 152. Lee, K.Y., R.M. Edwards, and T. Hiyama, "Combined Research and Cirriculum Development for Power Plant Intelligent Distributed Control," <u>IEEE PES Winter Meeting</u>, #PE-297-EC-0-12-1997,

Tampa, FL, February 1-5, 1998, and accepted for Publication in <u>IEEE Transcations on Energy</u> Conversion.

153. Harnold, C.-L.-M., K. Y. Lee, J.-H. Lee, and Y.-M. Park, "Free Model Based Adaptive Inverse Control for Dynamic Systems," Proc. the 37th IEEE Conference on Decision and Control, p.507,

December 16-18, 1998, Tampa, FL.

154. Lee, K. Y., M. Perakis, D. R. Sevcik, N. I. Santoso, G. K. Lausterer, and T. Samad, "Intelligent Distributed Simulation and Control of Power Plant," <u>IEEE PES Winter Meeting</u> paper #PE-508-EC-0-1-1998, accepted for publication in IEEE Trans. on Energy Conversion.

155. Garduno-Ramírez R. and K. Y. Lee, "Fuzzy Coordinated Control of a Power Unit," Proc. IEEE

Power Engineering Society Winter Meeting, pp.134-139, January 1999.

156. Batzel, T. D. and K. Y. Lee, "Sinusoidal Commutation of Slotless Permanent Magnet Synchronous Machine using Discrete Hall Sensor Feedback," Proc. IEEE Power Engineering Society Winter Meeting, pp.53-58, January 1999.

157. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "Dynamic Simulation of Direct Reforming Molten Carbonate Fuel Cell System", Proc. IEEE Power Engineering Society Winter Meeting, pp. 113-116,

January 1999.

- 158. Nam, H. K., Y. K. Kim, K. S. Shim, and K. Y. Lee, "A New Efficient Unified Strategy to Compute Voltage Collapse Point and Voltage Stability Enhancement by Generation Shift," Proc. IEEE Power
- Engineering Society Winter Meeting, pp. 640-645, January 1999.

 159. Hiyama, T., N. Suzuki, H. Karino, and K. Y. Lee, "Artificial Neural Network Based Modeling of Governor-Turbine System," Proc. IEEE Power Engineering Society Winter Meeting, pp. 129-133, January 1999.
- 160. Garduno-Ramirez, R. and K. Y. Lee, "Multiobjective Process Optimization of a Power Unit," Proc. The American Power Conference, Chicago, IL, Vol. 61 - II, pp. 538-541, April 6-8, 1999.

 161. Garduno-Ramirez, R. and K. Y. Lee, "Multivariable Feedforward/Feedback Control of a Power
- Unit," Proc. the International Conference on Intelligent System Application to Power Systems (ISAP -99), Rio de Janeiro, Brazil, April 4-8, 1999, pp. 145-149. 162. Won, J. R., J. B. Park, Y. M. Park, K. Y. Lee, "Economic Dispatch Solutions Using an Improved
- Genetic Algorithm," <u>Proc. International Conference on Intelligent System Application to Power Systems</u> (ISAP '99), Rio de Janeiro, Brazil, April 4-8, 1999, pp. 111-116.
- 163. Ghezelayagh, H. and K. Y. Lee, "Neuro-Fuzzy Identifier of a Boiler System," Proc. International Conference on Intelligent System Application to Power Systems (ISAP '99), Rio de Janeiro, Brazil, April 4-8, 1999, pp. 150-154.
- 164. Harnold, C.L.M., K. Y. Lee, J. H. Lee, and Y. M. Park, "Free-Model Based Neural Network for Dynamic Systems," Proc. the 18th American Control Conference, pp. 2819-2823, June 1999.
 165. Batzel, T. D. and K. Y. Lee, "Rotor Angle Estimation for Permanent Magnet Synchronous Machine using Application Specific Neural Networks," Proc. the 1999 Large Engineering Systems Conference on Power Engineering (LESCOPE '99), Hlifax, Nova Scotia, Canasa, pp. 145-151, June 20-22, 1999
- 166. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "Plant-Wide Simulation of Direct Reforming Molten Carbonate Fuel Cell Systems", <u>Proc. IEEE Power Engineering Society Summer Meeting</u>,
- pp. 532-535, July 1999.

 167. Nam, H. K., Y. K. Kim, K. S. Shim, and K. Y. Lee, "A New Eigen-Sensitivity Theory of Augmented Matrix and Its Applications to Power System Stability Analysis," Proc. IEEE Power Engineering Society Summer Meeting, pp. 733, paper #PE-464-PWKS-0-02-1999, July 1999.
- 168. Ghezelayagh, H. and K. Y. Lee, "Training Neuro-Fuzzy Boiler Identifier with Genetic Algorithm and Error Back-Propagation," Proc. IEEE Power Engineering Society Summer Meeting, pp.978-982, July 1999.
- 169. Park, J.-B., Y.-M. Park, J.-R. Won, and K. Y. Lee, "Least -Cost Generation Expansion Planning Based on an Improved Genetic Algorithm," Proc. IEEE Power Engineering Society Summer Meeting, pp. 1043-1047, July 1999.
- 170. Garduno-Ramirez R. and K. Y. Lee, "Power Unit Wide-Range Load Tracking Through Set-Point Optimization and Feedforward /Feedback Control," Proc. IEEE Power Engineering Society Summer Meeting, pp. 1203-1207, July 1999.
- 171. Harnold, C.L.M., K. Y. Lee, J. H. Lee, and Y. M Park, "Free-Model Based Model Reference Adaptive Inverse Controller Design for Power Plants", Proc. IEEE Power Engineering Society Summer Meeting, pp. 1208-1212, July 1999.
- 172. Batzel, T. D. and K. Y. Lee, "Starting Method for Sensorless Operation of Slotless Permanent Magnet Synchronous Machines," Proc. IEEE Power Engineering Society Summer Meeting, pp. 1243-1247, July 1999.

173. Garduno-Ramirez R. and K. Y. Lee, "Fuzzy Scheduling Control of a Power Plant," Proc. IEEE

Power Engineering Society Winter Meeting, paper # 2000WM-497, January 2000.

174. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "Operation and Control of Direct Reforming Fuel Cell Power Plant," Proc. IEEE Power Engineering Society Winter Meeting, paper# 2000WM-496, January 2000.

- 175. Nam, H. K., K. S. Shim, Y. K. Kim, S. G. Song, and K. Y. Lee, "Contingency Ranking for Transient Stability via Eigen-Sensitivity Analysis of Small Signal Stability Model," <u>Proc. IEEE</u> Power Engineering Society Winter Meeting, January 2000.
- 176. Ghezelayagh, H. and K. Y. Lee, "Application of Neuro-Fuzzy Identifier for a Fossil Fuel Boiler System," Proc. IEEE Power Engineering Society Winter Meeting, paper #2000WM-493, January 2000.
- 177. Harnold, C.-L.-M. and K. Y. Lee "Free Model Based Neural Networks for a Boiler Turbine Plant," Proc. IEEE Power Engineering Society Winter Meeting, paper# 2000WM-494, January 2000. 178. Garduno-Ramirez, R. And K.Y. Lee, "Reduced Rule Set Fuzzy-PID Control of a Power Plant,"
- Proc. IFAC Symposium on Power Plants & Power Systems Control 2000, pp. 273-277, April 2000.
- 179. Lukas, M.D., K.Y. Lee, H. Ghezel-Ayagh, "Modeling Simulation and Control of Direct Reforming Molten Carbonate Fuel Cell Power Plant," Proc. IFAC Symposium on Power Plants & Power Systems Control 2000, pp. 127-134, April 2000.
 180. Harnold, C.-L.-M. and K.Y. Lee "Application of the Free-Model Based Neural Networks in Model Reference Adaptive Inverse Control," Proc. American Control Conference, pp. 1664-1668, June 2000.
- 2000.
- 181. Harnold, C.-L.-M. and K.Y. Lee, 'Fee Model A New Direct Adaptive Predictor Approach", Proc. American Control Conference, pp. 3214-3218, June 2000.
- 182. Moon, U.-C and K. Y. Lee, "Temperature Control of Glass Melting Furnace with Fuzzy Logic and
- Conventional PI Control," <u>Proc. American Control Conference</u>, pp. 2720-2724, June 2000.

 183. Batzel, T. D. and K. Y. Lee, "A Diagonally Recurrent Neural Network Approach to Sensorless Operation of Permanent Magnet Synchronous Motor," Proc. IEEE Power Engineering Society
- Summer Meeting, pp. 2441-2445, July 2000.

 184. Lee, K. Y., H.-S. Ko, H.-C. Kim, J.-H. Lee, and Y.-M. Park, "A Free-Model Based Intelligent Controller Design Using Input-Output Data and Its Application to Power System Stabilization", Proc. IEEE Power Engineering Society Summer Meeting, pp. 1985-1989, July 2000.
- 185. Garduno-Ramirez R. and K. Y. Lee, "Feedforward-Compensated Multiloop Control of a Power Plant," <u>Proc. IEEE Power Engineering Society Summer Meeting</u>, pp. 206-211, July 2000. 186. Harnold, C.-L.-M. and K. Y. Lee "A Free Model Based Model Reference Adaptive Inverse
- Controller Design for a Boiler-Turbine Plant by Using Functional Mapping," Proc. IEEE Power
- Engineering Society Summer Meeting, pp. 212-216, July 2000.

 187. Shim K. S. H. K. Nam, S. G. Song, Y. K. Kim, and K. Y. Lee, "Application Results of the Eigen-Sensitivity Theory of Augmented Matrix to Small Signal Stability Analysis of Large Power Systems," Proc. IEEE Power Engineering Society Summer Meeting, pp. 1835-1838, July 2000.

 188. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "Reduced-Order Dynamic Model of Carbonate Fuel Cell System for Distributed Generation Control," Proc. IEEE Power Engineering Society Summer Meeting, pp. 1793-1797, July 2000.
- Meeting, pp. 1793-1797, July 2000.

 189. Moon, U.-C and K. Y. Lee, "Multi-Loop Control of Temperature for TV Glass Furnace," the Proc. IEEE Conference on Decision and Control Conference, #CDC00-REG1956, pp. 4550-4555,
- 190. Ghezelayagh, H. and K. Y. Lee, "Application of Genetic Algorithm in Extraction of Fuzzy Rules for a Boiler System Identifier," Proc. IEEE Power Engineering Society Winter Meeting, #2001WM253, January 2001.
- 191. Garduno-Ramirez R. and K. Y. Lee, "Overall Control of Fossil-Fuel Power Plants," Proc. IEEE Power Engineering Society Winter Meeting, #2001WM254, January 2001.
- 192. Lukas, M. D., K. Y. Lee, and H. Ghezel-Ayagh, "Performance Implications of Rapid Load Changes in Carbonate Fuel Cell Systems," Proc. IEEE Power Engineering Society Winter Meeting, #2001WM255, January 2001.
- 193. Lee, K. Y., H.-S. Ko, H.-C. Kim, J.-H. Lee, and Y.-M. Park, "A Free-Model Based Power System Stabilization", Proc. IEEE Power Engineering Society Winter Meeting, #2001WM256, January 2001.
- 194. Lee, K. Y., S. Manuspiya, M. Choi, and M. Shin, "Network Congestion Assessment for Power System Transmission Planning under Deregulated Environment", Proc. IEEE Power Engineering Society Winter Meeting, #2001WM257, January 2001.

- 195. Harnold, C.-L.-M. and K. Y. Lee, "A Free Model Based Adaptive Neuro-Controller Design for a Boiler-Turbine Design" Proc. International Conference on Intelligent System Applications to Power Systems, Budapest, June 2001, pp. 47-52.
- 196. Batzel, T. D. and K. Y. Lee, "Sensorless Operation of the Permanent Magnet Synchronous Motor using the Diagonal Recurrent Neural Network", Proc. International Conference on Intelligent System Applications to Power Systems, Budapest, June 2001, pp. 53-58.
- 197. Garduno-Ramirez, R. and K. Y. Lee, "Intelligent Hybrid Coordinated-Control of Fossil Fuel Power Units" Proc. International Conference on Intelligent System Applications to Power Systems, Budapest, June 2001, pp. 177-182.
- 198. Syed, P. M., Lukas, M. D., K. Y. Lee, and J. W. Jung, "A Genetic Algorithm Involving a New Hybrid Crossover Method for Constrained Optimal Tuning of Controllers in a Fuel Cell Power Plant", Proc. International Conference on Intelligent System Applications to Power Systems, Budapest, June 2001, pp. 20-24.
- 199. Lee, K. Y. and H.-S. Ko, "Power System Stabilization using A Free-Model Based Inverse Dynamic
- Linear Controller", Proc. IEEE Power Engineering Society Summer Meeting, CD46-05, July 2001.

 200. Lee, K. Y., H.-S. Ko, H.-C. Kim, J.-H. Lee, and Y.-M. Park, "A Free-Model Based Controller Design and Its Application to Power System Stabilization", Proc. American Control Conference,
- Arlington, VA, pp. 805-810, June 2001.

 201. Garduno-Ramirez R. and K. Y. Lee, "Supervisory Multiobjective Optimization of a Class of Unit Processes: Power Unit Case Study," Proc. American Control Conference, Arlington, VA, pp. 1497-1502, June 2001.
- 202. Syed, P. M., M. D. Lukas, K. Y. Lee, and J.-W. Jung, "A Genetic Algorithm Involving a New Hybrid Crossover Method for Constrained Optimal Tuning of Controllers in a Fuel Cell Power Plant," Proc. International Conference on Intelligent System Application to Power Systems (ISAP 2001), Budapest, Hungary, June 18-21, 2001.
 203. Harnold, C.-L.-M. and K. Y. Lee "A Free Model Based Adaptive Neuro-Controller Design for a Boiler-Turbine Plant," Proc. International Conference on Intelligent System Application to Power Systems (ISAP 2001), #47, Budapest, Hungary, June 18-21, 2001.
 204. Lukas, M. D., K. Y. Lee, H. Ghezel-Ayagh, Mark C. Cervi, "Experimental Transient Validation of a Direct FuelCell Stack Model," Proc. IEEE Power Engineering Society Summer Meeting, Vancouver, Canada, July 2001.
 205. Moon, U.-C and K. Y. Lee, "An Application of Free-Model Based Self-organizing Fuzzy Logic Control to a Boiler-Turbine System," Proc. International Conference on Electrical Engineering (ICEE 2001), pp.765-769, July 2001.
 206. Lee, K. Y., "Intelligent Distributed Control for Power Systems", Proc. International Conference on Electrical Engineering (ICEE 2001), (Keynote Speech), pp. 1-14, July 2001.
 207. Lee, K. Y., "Future Development of Power Systems in the 21st Century", Proc. International Conference on Electrical Engineering (ICEE 2001), (Panel), pp. 32-37, July 2001. Hybrid Crossover Method for Constrained Optimal Tuning of Controllers in a Fuel Cell Power

- Conference on Electrical Engineering (ICEE 2001), (Panel), pp. 32-37, July 2001.
 208. Ishimaru, M. R. Yokoyama, G. Shirai, and K. Y. Lee, "Allocation and Design of Robust TCSC
- Controllers Based on Power System Stability Index", Proc. IEEE Power engineering Society Winter Meeting, New York, CD 26-05. pdf, January 2002.
- 209. Lee, K. Y. and H.-S. Ko, "Power System Stabilization using A Free-Model Based Inverse Dynamic Neuro Controller", Proc. 2002 International Joint Conference on Neural Networks, 2002 World
- Neuro Controller', Proc. 2002 International Joint Conference on Neural Networks, 2002 World Congress on Computational Intelligence, Honolulu, Hawaii, pp. 2132-2137, May 12-17, 2002.

 210. Sayil, S. and K. Y. Lee, "A Hybrid Maximum Error Algorithm with Neighborhood Training for CMAC", Proc. 2002 International Joint Conference on Neural Networks, 2002 World Congress on Computational Intelligence, Honolulu, Hawaii, pp. 165-170, May 12-17, 2002.

 211. Ghezelayagh, H. and K. Y. Lee, "Intelligent Predictive Control of a Power Plant with Evolutionary Programming Optimizer and Neuro-Fuzzy Identifier", Proc. 2002 Congress on Neural Networks, 2002 World Congress on Computational Intelligence, Honolulu, Hawaii, pp. 1308-1313, May 12-17, 2002.
- 212. Lee, K. Y. and P. S. Mohamed, "A Real-Coded Genetic Algorithm Involving a Hybrid Crossover Method for Power Plant Control System Design", Proc. 2002 World Congress on Computational Intelligence, Honolulu, Hawaii, pp. 1069-1074, May 12-17, 2002.

213. Park, J.-B., J.-H. Kim, and K. Y. Lee, "Generation Expansion Planning in a Competitive Environment Using a Genetic Algorithm", (panel) Proc. IEEE Power Engineering Society Summer Meeting (CD), Chicago, May 2002.

214. Huang, Zhengyu, K. Y. Lee, and R. M. Edwards, "Fuzzy Logic Control for Nuclear Power Plant Overall Control", <u>Proc. the 15th IFAC World Congress</u>, (CD) paper #1392, 6 pages, Barcelona, Spain, July 21-26, 2002.

215. Batzel, T. D., D. P. Thivierge, and K. Y. Lee, "Application of Sensorless Electric Drive to Unmanned Undersea Vehicle Propulsion", Proc. the 15th IFAC World Congress, (CD) paper #1504, 6 pages, Barcelona, Spain, July 21-26, 2002.

216. Jung, J., H. Kim, K. Park, and K. Y. Lee, "State Estimation for Autonomous Guided Vehicle Using the Extended Kalman Filter", Proc. the 15th IFAC World Congress, (CD) paper #1884, 6 pages, Barcelona, Spain, July 21-26, 2002.

217. Lee, D.-S. and K. Y. Lee, "Adaptive Fuzzy Controller Design with Nonlinear Sliding Mode", Proc.

- the 15th IFAC World Congress, (CD) paper #2295, 6 pages, Barcelona, Spain, July 21-26, 2002.

 218. Ghezelayagh, H. and K. Y. Lee, "Application of Neuro-Fuzzy Identifier in the Predictive Control of a Power Plant", Proc. the 15th IFAC World Congress, (CD) paper #2403, 6 pages, Barcelona, Spain, July 21-26, 2002.
- 219. Garduno-Ramirez R. and K. Y. Lee, "Power Plant Coordinated-Control with Wide-Range Control-Loop Interaction Compensation", <u>Proc. the 15th IFAC World Congress</u>, (CD) paper #2407, 6 pages,
- Barcelona, Spain, July 21-26, 2002.

 220. Liu, C., M. Ishimaru, R. Yokoyama, and K. Y. Lee, "Allocation of TCSTs for Mitigating Low-frequency Oscillation on a Tie-line in an Interconnected Power System", E-Tu-II, Impact of FACTS on Power System Dynamics, #229, IEEE Bologna Power Tech 2003, June 23-26, 2003.
- 221. Chang, J., K. Y. Lee, and R. Garduno-Ramirez, "Multiagent Control System for a Fossil-Fuel Power Unit," Proc. IEEE Power Engineering Society General Meeting, CD PES2003-000940.pdf, Toronto, Canada, July 13 17, 2003.
- 222. Park, J.-B., K.-S. Lee, J.-R. Shin, and K. Y. Lee, "Economic Load Dispatch for Non-Smooth Cost Functions Using Particle Swarm Optimization," Proc. IEEE Power Engineering Society General Meeting, CD PES2003-000999.pdf, Toronto, Canada, July 13 17, 2003.
- 223. Ko, H.-S., T. Niimura, and K. Y. Lee, "An Intelligent Controller for a Remote Wind-Diesel Power System - Design and Dynamic Performance Analysis," Proc. IEEE Power Engineering Society
- General Meeting, CD PES2003-000980.pdf, Toronto, Canada, July 13 17, 2003.

 224. Garduno-Ramirez R. and K. Y. Lee, "Power Plant Fuzzy PID Scheduling Control Over Full Operating Space", Proc. International Conference on Intelligent System Application to Power
- Systems (ISAP 2003), CD ISAP03-086.pdf, Lemnos, Greece, August 31 September 3, 2003.
 Chang, J., K. Y. Lee, and R. Garduno-Ramirez, "Optimal Task Decomposition Agents of the Multiagent Power Plant Control System", Proc. International Conference on Intelligent System Application to Power Systems (ISAP 2003), CD ISAP03-085.pdf, Lemnos, Greece, August 31 – September 3, 2003.
- 226. Ghezelayagh, H. and K. Y. Lee, "Application of Self-Organized Neuro-Fuzzy Identifier in Intelligent Predictive Control of a Power Plant", <u>Proc. International Conference on Intelligent System Application to Power Systems</u> (ISAP 2003), CD ISAP03-108.pdf, Lemnos, Greece, August

- 31 September 3, 2003.

 227. Park, J.-B., K.-S. Lee, J.-R. Shin, and K. Y. Lee, "Economic Load Dispatch Based on a Hybrid Particle Swarm Optimization", Proc. International Conference on Intelligent System Application to Power Systems (ISAP 2003), CD ISAP03-070.pdf, Lemnos, Greece, August 31 September 3,
- 228. Garduno-Ramirez R. and K. Y. Lee, "Feasibility Analysis of Control-Loop Interaction Compensation for a Fossil-Fuel Power Plant", <u>Proc. IFAC Symposium for Power Plants and Power</u>
- Systems Control, pp. 837-842, Seoul, Korea, June 9-12, 2003.

 229. Kim, G. W. and K. Y. Lee, "Power System Reliability Assessment Considering Non-Exponential Distributions And Restorative Actions Feasibility Analysis of Control-Loop Interaction Compensation for a Fossil-Fuel Power Plant", Proc. IFAC Symposium for Power Plants and Power Systems Control, pp. 1176-1181, Seoul, Korea, June 9-12, 2003.

230. Jeon, Y.-J., J.-C. Kim, S.-Y. Yun, and K. Y. Lee, "Application of Ant Colony Algorithm for Network Reconfiguration in Distribution Systems", <u>Proc. IFAC Symposium for Power Plants and Power Systems Control</u>, pp. 266-271, Seoul, Korea, June 9-12, 2003.

231. Farsangi, M. M., Y. H. Song, and K. Y. Lee, "LMI Approach to Decentralized H_∞ Control of FACTS Devices in a Large Power System: Polytopic Representation of Operating Conditions",

- Proc. IFAC Symposium for Power Plants and Power Systems Control, pp. 790-796, Seoul, Korea, June 9-12, 2003.
- 232. Chang, J. and K. Y. Lee, "Feedback Control Agents of the Multiagent Power Plant Control System", Proc. the Second International Conference on Machine Learning and Cybernetics, paper ID 862, Xi'an, China, November 2 - 5, 2003.
- 233. Sode-Yome, A., K. Y. Lee, and N. Mithulanathan, "Fast Hopfield Neural Networks for Economic Load Dispatch," Proc. Fourth International Conference on Intelligent Technologies, pp. 117-122, Chiang Mai, Thailand, December 17-19, 2003.
- 234. Masina, S., K. Y. Lee, and R. Garduno-Ramirez, "An Architecture of Multi Agent System Applied to Fossil Power-Fuel Power Unit", Proc. of the IEEE Power Engineering Society General Meeting, CD PESGM2004-000940.PDF, Denver, CO, June 6-10, 2004.
- 235. Lee, K. Y., J. P. Velas, and B.-H. Kim, "Development of an Intelligent Monitoring System with High Temoerature Distributed Fiber-optic Sensor for Fossil Fuel Power Plant", Proc. of the IEEE Power Engineering Society General Meeting, PESGM2004-001350.PDF, Denver, CO, June 6-10, 2004.
- 236. Park, J.-B., K.-S. Lee, J.-R. Shin, and K. Y. Lee, "A Resource Maintenance Scheduling Scheme with Consideration of Interruptible Loads", Proc. of the IEEE Power Engineering Society General
- Meeting, PESGM2004-001025.PDF, Denver, CO, June 6-10, 2004.

 237. Ko, H.S., T. Niimura, J. Jatskevitch, H. C. Kim, and K. Y. Lee, "Power Quality Control of Wind Power Generation with Battery StorageUsing Fuzzy-LQG Controller," Proc. of the IEEE Power Engineering Society General Meeting, PESGM2004-001087.PDF, Denver, CO, June 6-10, 2004.
- 238. Ko, H.-S., K. Y. Lee, and H. -C. Kim, "A Free-Model Based Controller design for Power System Stabilization," Proc. 2005 IFAC Congress, Prague, Czech Republic, July 4-8, 2005, paper code: 03976.pdf, Mo-E07-TO/3.
- 239. Heo, J. S., K. Y. Lee, and R. Garduno-Ramirez, "Multiobjective Optimal Power Plant Operation Using Particle Swarm Optimization Technique," <u>Proc. 2005 IFAC Congress</u>, Prague, Czech Republic, July 4-8, 2005, paper code: 04833.pdf, Tu-M06-TO/4.
- 240. Lee, K. Y. and J. G. Vlachogiannis, "Ant Colony Optimization for Active/Reactive Operational Planning," Proc. 2005 IFAC Congress, Prague, Czech Republic, July 4-8, 2005, paper code: 02415.pdf, Tu-A08-TO/5.
- 241. Kwon, S. and K. Y. Lee, "Generalization of Reinforcement learning with CAMC," Proc. 2005 IFAC Congress, Prague, Czech Republic, July 4-8, 2005, paper code: 04500.pdf, We-M04-TP/3.
- Congress, Prague, Czech Republic, July 4-8, 2005, paper code: 04500.pdf, We-M04-TP/3.
 242. Park, J.-B. Park, J.-R. Shin, Y.-W. Jeong, G.-H. Choe, and K. Y. Lee, "An Electricity Market Analysis Method based on Probabilistic Costing Technique," Proc. 2005 IFAC Congress, Prague, Czech Republic, July 4-8, 2005, paper code: 03081.pdf, We-A02-TP/21.
 243. Lee, J.-K. Lee, J.-B. Park, J.-R. Shin, and K. Y. Lee, "A System Marginal Price Forecasting Based on an Artificial Neural Network Using Time and Day Information," Proc. 2005 IFAC Congress, Prague, Czech Republic, July 4-8, 2005, paper code: 02704.pdf, Tu-E01-TP/6.
 244. Park, J.-B., K.-S. Lee, J.-R. Shin, K. Y. Lee, and Deb Chattopadhyay, "A New Framework of Marginal Loss Factors with Consideration of the Electrical Distance," Proc. of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005.
 245. Lee, J.-K. Lee, J.-B. Park, J.-R. Shin, K. Y. Lee, and S.-S. Kim, "A System Marginal Price Forecasting Based on an Artificial Neural Network Adapted with Rough Set Theory," Proc. of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005.

- IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005.

 246. Farsangi, M. M., Y. H. Song, and K. Y. Lee, "On Selection of Supplementary Input Signals for STATCOM to Damp Inter-Area Oscillations in Power Systems," Proc. of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005.
- 247. Kim, B.-H., J. P. Velas, and K. Y. Lee, "Development of Intelligent Monitoring System for Fossil-Fuel Power Plants Using System Type Neural Networks and Semigroup Theory", <u>Proc. of the IEEE Power Engineering Society General Meeting</u>, in CD, San Francisco, June 12-17, 2005.
- 248. Heo, J. S. and K. Y. Lee, "A Multi-Agent System-Based Intelligent Control System for a Power Plant," Proc. of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June
- 249. Moon, U.-C and K. Y. Lee, "Application of Dynamic Matrix Control to a Boiler-Turbine System," Proc. of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005.
- 250. Garduno-Ramirez, R., J. S. Heo, and K. Y. Lee, "Dynamic Multiobective Optimization of Power Plant Using PSO Techniques," <u>Proc. of the IEEE Power Engineering Society General Meeting</u>, in CD, San Francisco, June 12-17, 2005.

251. Chattopadhyay, D., K.-S. Lee, K. Y. Lee, J.-B. Park, and J.-R. Shin, "A New Framework of Marginal Loss Factors with Consideration of the Electrical Distance," <u>Proc. of the IEEE Power Engineering Society General Meeting</u>, in CD, San Francisco, June 12-17, 2005.

252. Farsangi, M. M., K. Y. Lee, and Y. H. Song, "On Selection of Supplementary Input Signals for STATCOM to Damp Inter-Area Oscillations in Power Systems," <u>Proc. of the IEEE Power Engineering Society General Meeting</u>, in CD, San Francisco, June 12-17, 2005.

253. Lee, J.-K., K. Y. Lee, J.-B. Park, and J.-R. Shin, "A System Marginal Price Forecasting Based on an Artificial Neural Network Adapted with Rough Set Theory," Proc. of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005.

254. Batzel, T. D. and K. Y. Lee, "Velocity Observer for PMSM Without Rotational Transducer," Proc.

of the IEEE Power Engineering Society General Meeting, in CD, San Francisco, June 12-17, 2005. 255. Sode-Yome, A., N. Mithulanathan, and K. Y. Lee, "Effect of Realistic Load Direction in Static

- Voltage Stability Study," <u>Proc. IEEE/PES T&D Asia Pacific Conference, August 14-18, 2005.</u>
 256. Sode-Yome, A., N. Mithulanathan, and K. Y. Lee, "Static Voltage Stability Margin Enhancement Using STATCOM, TCSC, and SSSC," <u>Proc. IEEE/PES T&D Asia Pacific Conference, August 14-18, 2005.</u>
- 257. Lee, K. Y. and J. G. Vlachogiannis, "Optimization of Power Systems Based on Ant Colony System Algorithms: An Overview," Proc. International Conference on Intelligent System Application to Power Systems (ISAP 2005), Arlington, VA, USA, November 6 10, 2005.
 258. Kim, B.-H., J. P. Velas, and K. Y. Lee, "Semigroup Based Neural Network Architecture for Extrapolation of Enthalpy in a Power Plant," Proc. International Conference on Intelligent System Application to Power Systems (ISAP 2005), pp. 291-296, Arlington, VA, USA, November 6 10,
- 259. Heo, J. S. and K. Y. Lee, "A Multi-Agent System-Based Intelligent Steady-State Model for a Power Plant," Proc. International Conference on Intelligent System Application to Power Systems (ISAP
- 2005), pp. 419-424, Arlington, VA, USA, November 6 10, 2005.

 260. Vlachogiannis J. G. and K.Y. Lee, "Reactive Power Control Based on Particle Swarm Optimization," Proc. International Conference on Intelligent System Application to Power Systems

(ISAP 2005), pp. 494-498, Arlington, VA, USA, November 6 - 10, 2005.

261. Ko, H.-S., K. Y. Lee, M.-J. Kang, and H.-C. Kim, "Generalized Minimum Variance Neuro Controller for Power System Stabilization," Proc. Third International Symposium on Neural networks, ISNN 2006, Chengdu, China, May 28-June 1, Part II (Lecture Notes in Computer Science, LNCS 3972, J. Wang, et al. (Eds.), pp. 1338-1347, 2006, ISNN 0302-9743, Springer-Verlag, Berlin Heidelberg 2006).

262. Lee, K. Y., "Intelligent Techniques Applied to Power Plant Control," <u>Proc. of the IEEE Power</u>

- 265. Choi, T.-I. and Lee, K. Y., "Distribution Automation Using CDMA," <u>Proc. of the IEEE Power Engineering Society General Meeting</u>, in Montreal, Canada, June 18-22, 2006.
- 266. Vlachogiannis J. G. and K.Y. Lee, "Coordinated Aggregation Particle Swarm Optimization Applied in Reactive Power and Voltage Control," Proc. of the IEEE Power Engineering Society General Meeting, in Montreal, Canada, June 18-22, 2006.
 267. Sode-Yome, A., N. Mithulanathan, and K. Y. Lee, "Comparison of Generation Directions in Power System Static Voltage Stability," Proc. of the IEEE Power Engineering Society General Meeting, in Montreal, Canada, June 18-22, 2006.
 268. Hear, J.S. and K. Y. Lee, "A Multi-Agent System Based Reference Covernor For Multiphicative

268. Heo, J.S. and K. Y. Lee, "A Multi-Agent System-Based Reference Governor For Multiobjective Power Plant Operation," <u>Proc. of the IFAC Symposium on Power Plants and Power Systems</u>

Control, in Kananaskis (near Calgary), Canada, June 25-28, 2006.
269. Kim, B.-H., J. P. Velas, and K. Y. Lee, "Semigroup based Neural Network Architecture for Extrapolation of Mass Unbalance for Rotating Machines in Power Plants," Proc. of the IFAC Symposium on Power Plants and Power Systems Control, in Kananaskis (near Calgary), Canada, June 25-28, 2006.

270. Ebrahimi, S., M. M. Farsangi, H. Nezamabadi-Pour, and K. Y. Lee, "Optimal Allocation of Static Var Compensators using Modal Analysis, Simulated Annealing and Tabu Search," Proc. of the

- IFAC Symposium on Power Plants and Power Systems Control, in Kananaskis (near Calgary), Canada, June 25-28, 2006.
- 271. Sode-Yome, A., N. Mithulanathan, and K. Y. Lee, "Voltage Stability Assessment And Enhancement of The Thailand Power System," Proc. of the IFAC Symposium on Power Plants and Power Systems Control, in Kananaskis (near Calgary), Canada, June 25-28, 2006.
- 272. Lee, K. Y., S. H. Kim, E. W. Kim, and H.-C. Kim, "Fuel Cell as an Alternative Distributed Generation Source under Deregulated Power System," Proc. of the KIEE Summer Meeting, July 12-14, 2006, Yongpyeong, Korea.
- 273. Heo, J.S. and K. Y. Lee, "A Multi-Agent System-Based Intelligent Heuristic Optimal Control System for A Large-Scale Power Plant," Proc. of the IEEE World Congress on Computational Intelligence, pp. 5693-5700, Vancouver, Canada, July 16-21, 2006.
- 274. Lee, K. Y., "System-Type Neural Network Architectures for Power Systems," Proc. of the IEEE World Congress on Computational Intelligence, pp. 3329-3336, Vancouver, Canada, July 16-21, $\overline{2}006.$
- 275. Kim, B.-H., J. P. Velas, and K. Y. Lee, "Short-Term Load Forecasting Using System-Type Neural Network Architecture," <u>Proc. of the IEEE World Congress on Computational Intelligence</u>, pp. 4926-4933, Vancouver, Canada, July 16-21, 2006.
- 276. Farsangi, M. M., H. Nezamabadi-Pour, and K. Y. Lee, "Multi-objective VAr planning by SVC for a large power system using PSO and GA," <u>Proc. of the IEEE World Congress on Computational Intelligence</u>, in Vancouver, Canada, July 16-21, 2006.
- 277. Kim, B.-H., J. P. Velas, J.-K. Lee, J.-B. Park, J.-R. Shin, and K. Y. Lee, "Short-Term System Marginal Price Forecasting Using System-Type Neural Network Architecture," Proc. of the IEEE Power Systems Conference & Exposition, pp. 1753-1758, Atlanta, GA, October 28-November 3, 2006.
- 278. Lee, K. Y. and J.-B. Park, "Application of Particle Swarm Optimization to Economic Dispatch Problem: Advantages and Disadvantages," Proc. of the IEEE Power Systems Conference & Exposition, pp. 188-192, Atlanta, GA, October 28-November 3, 2006.
- 279. Sode-Yome, A., N. Mithulanathan, and K. Y. Lee, "A Comprehensive Comparison of FACTS Devices for Enhancing Static Voltage Stability," <u>Proc. of the IEEE Power Engineering Society</u> General Meeting, in Tampa, FL., June 24-18, 2007.
- 280. Choi, T-I., K. Y. Lee, S. T. Junker, and H. Ghezel-Ayagh, "Neural Network Supervisor for Hybrid Fuel Cell/Gas Turbine Power Plants," Proc. of the IEEE Power Engineering Society General Meeting, in Tampa, FL., June 24-18, 2007.
- 281. Lee, K. Y., J. S. Heo, J. A. Hoffman, S.-H. Kim, and W. H. Jung, "Neural Network-Based Modeling for A Large-Scale Power Plant," Proc. of the IEEE Power Engineering Society General Meeting, in Tampa, FL., June 24-18, 2007.
- 282. Lee, K. Y., J. S. Heo, J. A. Hoffman, S.-H. Kim, and W. H. Jung, "Modified Predictive Optimal Control Using Neural Network-based Combined Model for Large-Scale Power Plants," Proc. of the
- IEEE Power Engineering Society General Meeting, in Tampa, FL., June 24-18, 2007.
 283. Mollazei, S., M. M. Farsangi, H. Nezamabadi-pour, and K. Y. Lee, "Multi-objective Optimization of Power System Performance with TCSC Using the MOPSO Algorithm," Proc. of the IEEE Power Engineering Society General Meeting, in Tampa, FL., June 24-18, 2007.

 284. Lee, K. Y., M. M. Farsangi, and H. Nezamabadi-pour, "Hybrid of Analytical and Heuristic Techniques for FACTS Devices in Transmission Systems," Proc. of the IEEE Power Engineering
- Society General Meeting, in Tampa, FL., June 24-18, 2007.
 285. Lee, K. Y. and S. H. Kim, "Progress in Distributed Generation in Korea," Proc. of the IEEE Power
- Engineering Society General Meeting, in Tampa, FL., June 24-18, 2007.

 286. Gharaveisi, A. A, M. Rashidinejad, and K. Y. Lee, "Spinning Reserve Pricing via Security Instruments in Competitive Electricity Markets," Proc. of the IEEE Power Engineering Society General Meeting, in Tampa, FL., June 24-18, 2007.
- 287. Ko, H.-S., K. Y. Lee, M.-J. Kang, and H,-C. Kim, "A Simultaneous Perturbation Stochastic Approximation Based Model Approximation and its Application for Power System Stabilizers," Proc. of the Fourth International Symposium on Neural Networks (ISNN 2007), Nanjing, China, June 3-7, 2007.
- 288. Ko, H.-S., K. Y. Lee, M.-J. Kang, W.-C. Song, and H,-C. Kim, "Electricity Price Prediction Model Based on Simultaneous Perturbation Stochastic Approximation," Proc. of the Fourth International Symposium on Neural Networks (ISNN 2007), Nanjing, China, June 3-7, 2007.
- 289. Raul Garduno-Ramirez and Kwang Y. Lee, "Fuzzy Gain-Scheduling PID+Decoupling Control for Power Plant Wide-Range Operation, Proc. of International Conference on Intelligent Systems Application to Power Systems, Kaohsing, Taiwan, November 5-8, 2007, pp. 233-238.

290. Jong-Bae Park, Yun-Won Jeong, Joog-Rin Shin, Kwang Y. Lee, and Jin-Ho Kim, "A Hybrid Particle Swarm Optimization Employing Crossover Operation for Economic Dispatch Problems with Valve-point Effects, Proc. of International Conference on Intelligent Systems Application to Power Systems (ISAP), Kaohsing, Taiwan, November 5-8, 2007, pp. 281-286.
291. Manho Joung, Jinho Kim and Kwang Y. Lee, "Moral Hazard in the Electricity Capacity Markets,

Proc. of <u>International Conference on Intelligent Systems Application to Power Systems (ISAP)</u>, Kaohsing, Taiwan, November 5-8, 2007, pp. 136-139.

292. Nathaniel J. Hobbs, Byoung H. Kim, and Kwang Y. Lee, "Long-Term Load Forecasting Using System-Type Neural Network Architecture, Proc. of International Conference on Intelligent Systems Application to Power Systems, Kaohsing, Taiwan, November 5-8, 2007, pp. 454-460.

293. Joel H. Van Sickel, Kwang Y. Lee, and Jin S. Heo, "Differential Evolution and its Applications to Power Plant Control, Proc. of International Conference on Intelligent Systems Application to Power

Systems, Kaohsing, Taiwan, November 5-8, 2007, pp. 560-565.

294. Un-Chul Moon, Seung-Chul Lee, and Kwang Y. Lee, "An Adaptive Dynamic Matrix Control of a Boiler-Turbine System Using Fuzzy Inference, Proc. of <u>International Conference on Intelligent Systems Application to Power Systems</u>, Kaohsing, Taiwan, November 5-8, 2007, pp. 566-571.

295. Saeid Kyanzadeh, Malihe M. Farsangi, Hossein Nezamabadi-pour, and Kwang Y. Lee, "Design of

Power System Stabilizer Using Immune Algorithm, Proc. of <u>International Conference on Intelligent Systems Application to Power Systems, Kaohsing, Taiwan, November 5-8, 2007</u>, pp. 394-399.

296. Woo-Nam Lee, Yun-Won Jeong, Jong-Bae Park, Joong-Rin Shin, and Kwang Y. Lee, "Development of an Educational Simulator for Particle Swarm Optimization and Economic

- Dispatch Applications, Proc. of <u>International Conference on Intelligent Systems Application to Power Systems, Kaohsing, Taiwan, November 5-8, 2007, pp. 662-667.</u>
- 297. Malihe M. Farsangi, Hossein Nezamabadi-pour, and Kwang Y. Lee, "Implementation of GCPSO for Multi-objective VAr Planning with SVC and Its Comparison with GA and PSO, Proc. of International Conference on Intelligent Systems Application to Power Systems, Kaohsing, Taiwan, November 5-8, 2007, pp. 287-292.
- 298. Haidari, S., M. Farsangi, H. Nezamabadi-Pour, and K. Y. Lee, "Design of a Supplementary Controller for HVDC Using Memetic Algorithm," Proc. of the 17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.
- 299. Kyanzadeh, S., M. Farsangi, H. Nezamabadi-Pour, and K. Y. Lee, "Design of a Supplementary Controller for SVC Using Immune Algorithm," Proc. of the 17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.
- 300. Farsangi, M., H. Nezamabadi-Pour, and K. Y. Lee, "Multi-Objective VAr Planning with SVC Using Immune Algorithm and Guaranteed Convergence Particle Swarm Optimization," Proc. of the 17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.
- 301. Un-Chul Moon, Jae-Du Lee, Seung-Chul Lee, and Kwang Y. Lee, "An Adaptive Dynamic Matrix Control of a Boiler-Turbine System," Proc. of the 17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.
- 302. Lee Kwang Y., Joel H. Van Sickel, Jason A. Hoffman, Won-Hee Jung, and Sung-Ho Kim, "Controller Design for a 1000 MW Ultra Super Critical Once-Through Boiler Power Plant," Proc. of the 17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.
- 303. Choi, Tae-Il and Kwang Y. Lee, "Intelligent Control of Fuel Cell Power Plant," Proc. of the 17th IFAC World Congress, July 6-11, 2008, Seoul, Korea.
- 304. Farsangi, M., S. Kyanzadeh, H. Nezamabadi-Pour, and K. Y. Lee, "Design of a Supplementary Controller for SVC Using Hybrid Real Immune Algorithm and Local Search," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.
- 305. Haidari, S., M. Farsangi, H. Nezamabadi-Pour, and K. Y. Lee, "Design of a Supplementary Controller for HVDC Using Memetic Algorithm with Population Management," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.
- 306. Van Sickel, J., P. Venkatesh and K. Y. Lee, "Analysis of the Pareto Front of a Multi-objective Optimization Problem for a Fossil Fuel Power Plant," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.
- 307. Lee, K. Y., W. Yang, S. Junker, and H. Ghezel-Ayagh, "Fault Diagnosis and Accommodation System with a Hybrid Model for Fuel Cell Power Plant," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.
- 308. Venkatesh P. and K. Y. Lee, "Multi-Objective Evolutionary Programming for Economic Emission Dispatch Problem," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.

- 309. Kim, S., Y. Kim, and K. Y. Lee, "Impact of Wind Power Generation In the Korea-Jeju Power System," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.
- 310. Ma, L. and K. Y. Lee, "Fuzzy Neural Network Approach for Fault Diagnosis of Power Plant Thermal System Under Different Operating Points," Proc. of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 20-24, 2008.
- 311. Du, Shu and K. Y. Lee, "Short-Term Load Forecasting Using System-Type Neural Network Architecture," Proceedings of the 2009 ASEE Gulf-Southwest Annual Conference, Baylor University, Waco, TX, March 18-20, 2009.
- 312. Liang Wu, Jeongie Park, Jaeseok Choi, and Kwang Y. Lee, "Effect of Correlation Coefficient of Wind Speed on the Probabilistic Reliability Evaluation of Power System considering Wind Turbine-Generator," KIEE Spring Meeting, May 22-23, 2009.
- 313. Sode-Yome, A., and K. Y. Lee, "An Approximation of Voltage Stability Margin Using Artificial Neural Networks in Power Systems," Proc. of the IFAC Symposium on Power Plants and Power Systems Control, in Tampere, Finland, July 5-8, 2009.
- 314. Park, Jong-Bae, Joo-Won Lee, Hyun-Hong Kim, Wook Kim, and Kwang Y. Lee, "Locational Marginal Price with Demand-Side Bidding in a Competitive Market," <u>Proc. of the IFAC</u> Symposium on Power Plants and Power Systems Control, in Tampere, Finland, July 5-8, 2009.
- Symposium on Power Plants and Power Systems Control, in Tampere, Finland, July 5-8, 2009.

 315. Lee, Kwang Y., Liangyu Ma, Chang J. Boo, Won-Hee Jung, and Sung-Ho Kim, "Inverase Dynamic Neuro-Controller for Super heater Steam Temperature Control of a Large-Scale Ultra Super Critical (USC) Boiler Unit," Proc. of the IFAC Symposium on Power Plants and Power Systems Control, in Tampere, Finland, July 5-8, 2009.
- 316. Van Sickel, Joel H. and Kwang Y. Lee, "Reverse normal-boundary intersection for multi-objective optimization for power plant operation," Proc. of the IFAC Symposium on Power Plants and Power Systems Control, in Tampere, Finland, July 5-8, 2009.
- 317. Neyestani, Mehdi, Malihe M. Farsangi, Hossein Nezamabadi-Pour, and Kwang Y. Lee, "A modified particle optimization for economic dispatch with nonsmooth cost fuentions," Proc. of the IFAC Symposium on Power Plants and Power Systems Control, in Tampere, Finland, July 5-8, 2009.

 318. Sode-Yome, A., and K. Y. Lee, "Application of Matlab symbolic and optimization toolboxes in
- 318. Sode-Yome, A., and K. Y. Lee, "Application of Matlab sysmbolic and optimization toolboxes in static voltage stability in power systems," <u>Proc. of the IFAC Symposium on Power Plants and Power Systems Control</u>, in Tampere, Finland, July 5-8, 2009.
- 319. Lee, Kwang Y., Liangyu Ma, Chang J. Boo, Won-Hee Jung, and Sung-Ho Kim, "Intelligent Modified Predictive Optimal Control of Reheater Steam Temperature in a Large-Scale Boiler Unit," Proc. of the IEEE Power Engineering Society General Meeting, in Calgary, Canada, July 26-30, 2009.
- 320. Choi, Tae-II and Kwang Y. Lee, "Interface of a Fuel Cell Distributed Generator with Distribution System Network," Proc. of the IEEE Power Engineering Society General Meeting, in Calgary, Canada July 26-30, 2009
- Canada, July 26-30, 2009.

 321. Yang, Wenli, Lee, K. Y., S. Junker, and H. Ghezel-Ayagh, "Model Augmentation for Hybrid Fuel-Cell / Gas Turbine Power Plant," Proc. of the IEEE Power Engineering Society General Meeting, in Calgary, Canada, July 26-30, 2009.

 322. Khaleghi, Milad, Malihe M. Farsangi, Hossein Nezamabadi-Pour, and Kwang Y. Lee, "Voltage
- 322. Khaleghi, Milad, Malihe M. Farsangi, Hossein Nezamabadi-Pour, and Kwang Y. Lee, "Voltage Stability Improvement by Multi-Objective Placement of SVC Using Modified Artificial Immune Network Algorithm," Proc. of the IEEE Power Engineering Society General Meeting, in Calgary, Canada, July 26-30, 2009.
- 323. Jeongje Park, Liang Wu, Jaeseok Choi, Kwang Y. Lee, and Junzo Watada, "Probabilistic Reliability Evaluation of Power Systems Including Wind Turbine Generators Considering Wind Speed Correlation," Proc. the Six International Symposium on Management Engineering, Paper 1615, Dalian, China, August 2-7, 2009.
- 324. Liang Wu, Jeongje Park, Jaeseok Choi, Kwang Y. Lee, A (Rahim) A. El-keib, and Junzo Watada, "A Study on Wind Speed Prediction using Artificial Neural Network at Jeju Island in Korea," Proc. the Six International Symposium on Management Engineering, Paper 1616, Dalian, China, August 2-7, 2009.
- 325. Jeongje Park, Liang Wu, Jaeseok Choi, Ung-Ki Baek, Woojang Cho, Kilyeong Song, Junmin Cha, and Kwang Y. Lee, "Fuzzy Set Theory based Flexible Generator Maintenance Scheduling," Proc. the Six International Symposium on Management Engineering, Paper 1619, Dalian, China, August 2-7, 2009.
- 326. Liang Wu, Jeongje Park, Jaeseok Choi, Junmin Cha and Kwang Y. Lee, "A Study on Wind Speed Prediction using Artificial Neural Network at Jeju Island in Korea," IEEE T&D ASIA, Seoul, Korea, October 26-30, 2009.

K. Y. Lee September 2019 30

- 327. Du, Shu and K. Y. Lee, "Short-Term Load Forecasting Using Semigroup Based System-Type Neural Network," Proc. of the 15th International Conference on Intelligent system Applications to Power Systems (ISAP 2009), Curitiba, Brazil, November 8-12, 2009.
- 328. Liang Wu, Jeongje Park, Jaeseok Choi, Junmin Cha and Kwang Y. Lee, "A Study on Wind Speed Prediction using Artificial Neural Network at Jeju Island in Korea," IEEE T&D ASIA, Seoul, Korea, October 26-30, 2009.
- 329. Van Sickel, Joel H. and Kwang Y. Lee, "Distributed Discrete Event and Pseudo Real-time Combined Simulation for Multi-agent Controlled Power Plants," Proc. of the 15th International Conference on Intelligent system Applications to Power Systems (ISAP 2009), Curitiba, Brazil, November 8-12, 2009.
- 330. Van Sickel, Joel H. and Kwang Y. Lee, "Real-time Based Agent Architecture for Power Plant Control," Proc. of the 15th International Conference on Intelligent system Applications to Power Systems (ISAP 2009), Curitiba, Brazil, November 8-12, 2009.
- Systems (ISAP 2009), Curitiba, Biazii, November 8-12, 2009.
 331. Sode-Yome, A., and K. Y. Lee, "Approximate Loading Margin Methods Using Artificial Neural Networks in Power Systems," Proc. of the 15th International Conference on Intelligent system Applications to Power Systems (ISAP 2009), Curitiba, Brazil, November 8-12, 2009.
 332. Yun-Won Jeong, Jong-Bae Park, Se-Hwan Jang, and Kwang Y. Lee, "A New Quantum-Inspired Binary PSO for Thermal Unit Commitment Problems," Proc. of the 15th International Conference on Intelligent system Applications to Power Systems (ISAP 2009), Curitiba, Brazil, November 8-12, 2009.
- 333. Yong-Gi Park, Jong-Bae Park, Wook Kim, and Kwang Y. Lee, "Incorporated Multi-Stage Nash Equilibriums for the Generation Allocation Problem Considering Ramp Rate Effects," Proc. of the 15th International Conference on Intelligent system Applications to Power Systems (ISAP 2009), Curitiba, Brazil, November 8-12, 2009.
- 334. Pindoriya, N. M., S. N. Singh, Kwang Y. Lee, "A Comprehensive Survey on Multi-objective Evolutionary Optimization in Power System Applications Session title: Heuristic Optimization Methods to Provide Smart Grid," Panel Paper, IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
- 335. Afkousi-Paqaleh, M., A. Abbaspour-Tehrani fard, M. Rashidinejad and K. Y. Lee, "Optimal Placement and Sizing of Distributed Resources for Congestion Management Considering Cost/Benefit Analysis," IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
- 336. Sode-Yome, Arthit and Kwang Y. Lee, "Neural Network Based Loading Margin Approximation for Static Voltage Stability in Power Systems Session title: Power System Operations," IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
- 337. Shah, Rakibuzzaman, Nadarajah Mithulananthan, Arthit- Sode-Yome, and Kwang.Y.Lee, "Impact 337. Snan, Rakibuzzaman, Nadarajan Mithulananthan, Arthit- Sode-Yome, and Kwang. Y. Lee, "Impact of Large-Scale PV Penetration on Power System Oscillatory Stability Session title: T&D Impacts from High Penetration of PV Solar." IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
 338. Yang, Wenli and Kwang Y. Lee, "An Optimal Reference Governor with a Neural Network Combined Model for Hybrid Fuel-Cell/Gas-Turbine Session title: Hybrid energy systems," IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
 339. Kim, Woohun, Un-Chul Moon, Kwang Y. Lee, Won-Hee Jung, and Sung-Ho Kim, "Once-through Boiler Steam Temperature Control Using Dynamic Matrix Control Technique," IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.

- Engineering Society General Meeting, Minneapolis, July 25-29, 2010.

 340. Ma, Liangyu, Yongjun Lin and Kwang Y. Lee," Superheater Steam Temperature Control for a 300MW Boiler Unit with Inverse Dynamic Process Models," IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
- 341. Van Sickel, Joel H. and Kwang Y. Lee, "Pareto Optimization with Reverse Normal-Boundary Intersection for Power Plant Models," IEEE Power Engineering Society General Meeting, Minneapolis, July 25-29, 2010.
- 342. Ma, Liangyu, Zhenxing Shi and Kwang Y. Lee," Superheater Steam Temperature Control Based on the Expanded-Structure Neural Network Inverse Models," 2010 International Colloquium on Computing, Communication, Control, and Management", Yangzhou, China, August 20-22, 2010.
- 343. Head, J. D., Gomes, J. R., Williams, C. S., and Lee, K. Y., "Implementation of a Multi-Agent System for Optimized Multiobjective Power Plant Control," Proc. of the 2010 North American Power Symposium, Arlington, Texas, Sept. 26-28, 2010.
- 344. Minwon Park, Chulsang Hwang, Gyeong-Hun Kim, Byeong-Mun Song, and Kwang Y. Lee, "Voltage Transient Analysis of a PMSG Wind Power System using Controller-Hardware-in-the

- Loops," IEEE PES Conference on Innovative Smart Grid Technologies, Anaheim, January 17-19, 2011
- 345. Jaeseok Choi, Jeongje Park, Kwang Y. Lee, and Mohammad Shahidehpour, "Web-Based Online Real Time Reliability Information System for Composite Power Systems Including Wind Turbine Generators," IEEE PES Conference on Innovative Smart Grid Technologies, Anaheim, January 17-19, 2011.
- 346. Sha, R., M. Nadarajah, and K. Y. Lee, "Contribution of PV Systems with Ultra Capacitor Energy Storage on Inter-Area Oscillation," IEEE Power Engineering Society General Meeting, Detroit, July 24-28, 2011.
- 347. Ma, Liangyu and Kwang Y. Lee, "Neural Network Based Superheater Steam Temperature Control for a Large-Scale Supercritical Boiler Unit," IEEE Power Engineering Society General Meeting, Detroit, July 24-28, 2011.
- 348. Lee, K. Y., J. D. Head, J. R. Gomes, and C. S. Williams, "Multi-Agent System Based Intelligent Distributed Control System for Power Plants," IEEE Power Engineering Society General Meeting, Detroit, July 24-28, 2011.
- 349. Yao, Wang and Kwang Y. Lee, "A Control Configuration of Wind Farm for Load-Following and Frequency Support by Considering the Inertia Issue," IEEE Power Engineering Society General Meeting, Detroit, July 24-28, 2011.
- 350. Bijami, E., M. Jadidoleslam, A. Ebrahimi, M. M. Farsang, and Kwang Y. Lee, "Power System Stabilization using Brain Emotional Learning Based Intelligent Controller," IEEE Power Engineering Society General Meeting, Detroit, July 24-28, 2011.
 351. Yao, Wang and Kwang Y. Lee, "A wind Farm Configuration for Load-Following and its
- 351. Yao, Wang and Kwang Y. Lee, "A wind Farm Configuration for Load-Following and its Application to Primary Frequency Support," Proc. of the 2011 North American Power Symposium, Boston, August 4-6, 2011.
- 352. Guo, Zhitong and Kwang Y. Lee, "A Self-Adaptive Fuzzy PI Controller of Power Conditioning System for Hybrid Fuel-Cell/Turbine Power Plant," Proc. of the 2011 North American Power Symposium, Boston, August 4-6, 2011.
- 353. Vlachogiannis J. G. and K.Y. Lee, "Optimal Operation of Smart Grids in an Open Energy Market Environment," Coordinated Aggregation Particle Swarm Optimization Applied in Reactive Power and Voltage Control," Proc. of the 18th IFAC World Congress, August 28 September 2, 2011, Milan, Italy.
- 354. Head, J. D., J. R. Gomes, C. S. Williams, and K. Y. Lee, "Implementing Real-Time Gain Optimization in a Multi-Agent System Designed for Optimized Multiobjective Power Plant Control," Proc. of the 18th IFAC World Congress, August 28 September 2, 2011, Milan, Italy.
- 355. Choi, Jaeseok, Jongie Park, Kyeonghee Cho, Donghoon Jeon, Junmin Cha, Heung-Jae Lee, and Kwang. Y. Lee, "Reliability-Based Grid Expansion Planning of Power Systems Considering Wind Turbine Generators," Proc. of the 18th IFAC World Congress, August 28 September 2, 2011, Milan, Italy.
- 356. Li, Yiguo, Jiong Shen, and Kwang Y. Lee, "Data-driven Nonlinear Control of a Solid Oxide Fuel Cell System," Proc. of the 18th IFAC World Congress, August 28 September 2, 2011, Milan, Italy.
- Italy.

 357. Wu, Xiao, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Stable Model Predictive Control Based on TS Fuzzy Model with Application to Boiler-turbine Coordinated System," Proc. of the IEEE Conference on Decision and Control, December 12-15, Orlando, 2011.
- 358. Guo, Zhitong and Kwang Y. Lee, "Modeling and Simulation of a Power Conditioning System for the Hybrid Fuel-Cell/Turbine Power Plant," Proc. of the IEEE Conference on Decision and Control, December 12-15, Orlando, 2011.
- 359. Youngroc Kim, Hanju Cha, Byeong-Mun Song, and Kwang Y. Lee, "Design and Control of a Grid-Connected Three-Phase 3-Level NPC Inverter for Building Integrated Photovoltaic Systems," IEEE PES Conference on Innovative Smart Grid Technologies, January 16-20, 2012.
- 360. Kwang Y. Lee, "A Multi-Agent System-Based Intelligent Control System for A Large-Scale Power Plant," Presented at the 55th ISA POWID Annual I&C Symposium, June 3-8, 2012; http://www.isa.org.
- 361. Rakibuzzaman Shah, N. Mithulananathan, and Kwang.Y.Lee, "Robust Power Oscillation Damping Controller for Large-scale PV Plant," #2012GM0269, IEEE Power Engineering Society General Meeting, San Diego, July 22-27, 2012.
- 362. Kyu-Ho Kim, Sang-Bong Rhee, Kyung-Bin Song, and Kwang Y. Lee, "An Efficient Operation of a Micro Grid using Heuristic Optimization Techniques: Harmony Search Algorithm, PSO, and GA," #2012GM0947, IEEE Power Engineering Society General Meeting, San Diego, July 22-27, 2012.

K. Y. Lee September 2019 32

363. Se-Hwan Jang, Jong-Bae Park, Jae Hyung Roh, Sung-Yong Son, and Kwang Y. Lee, "Short-term Resource Scheduling for Power Systems with Energy Storage Systems," #2012GM1167, IEEE Power Engineering Society General Meeting, San Diego, July 22-27, 2012.

364. Eiman Sayedi, Malihe M. Farsangi, Mohammad Barati, and Kwang Y. Lee, "A Modified Shuffled Frog Leaping Algorithm for Nonconvex Economic Dispatch Problem," (Panel paper) #2012GM1701, IEEE Power Engineering Society General Meeting, San Diego, July 22-27, 2012.

- 365. Jason D. Head and Kwang Y. Lee, "Using Artificial Neural Networks to Implement Real-Time-Optimized Multi-objective Power Plant Control in a Multi-Agent System," IFAC Symposium on Power Plants and Power System Control, Toulouse, France, September 2-5, 2012.
- 366. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Stable Model Predictive Tracking Control for Boiler-Turbine Coordinated Control System," IFAC Symposium on Power Plants and Power System Control, Toulouse, France, September 2-5, 2012.
- 367. Arthit Sode-Yome, Nadarajah Mithulananthan, and Kwang Y. Lee, "Reactive Power Loss Sensitivity Approach in Placing FACTS Devices and UPFCS," IFAC Symposium on Power Plants and Power System Control, Toulouse, France, September 2-5, 2012.
- 368. Kyu-Ho Kim, Sang-Bong Rhee, Kyung-Bin Song, Kab-Ju Hwang, and Kwang Y. Lee, "Optimal Power Flow based on Generation Rescheduling Priority for Transient Stability Enhancement," IFAC Symposium on Power Plants and Power System Control, Toulouse, France, September 2-5, 2012.
- 369. Su-Hyung Yang, Ho-Chan Kim, Chang-Jin Boo, Young Il Lee, Jae Sik Lim, Hee-Sang Ko, and Kwang Y. Lee, "Power Quality Control of Hybrid Wind Power Systems Using Robust Tracking Control," IFAC Symposium on Power Plants and Power System Control, Toulouse, France, September 2-5, 2012.
- 370. Jeong-Min Lee, Eel-hwan Kim, Ho-Chan Kim, and Kwang Y. Lee, "Smart Wind Farm Design with Grid Energy Storage System in Jeju Island," IEEE PES Intelligent Smart Grid Technology Conference Europe, Berlin, Germany, October 14-17, 2012.
- 371. Liangyu Ma, Kwang Y. Lee, and Yinping Ge, "An Improved Predictive Optimal Controller with Elastic Search Space for Steam Temperature Control of Large-Scale Supercritical Power Unit," IEEE Conference on Decision and Control, Maui, Hawaii, December 8-14, 2012.
- 372. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Fuzzy Modeling and Control of Large-Scale Power Plant Using Clustering and Subspace Method," #805, Proc. of the 17th International Conference on Intelligent system Applications to Power Systems (ISAP 2013), Tokyo, Japan, July 1-3, 2013.
- 373. Ehsan Bijami, Malihe M. Farsangi, and Kwang Y. Lee, "A Predictive Fuzzy Wavelet Neural Network Power System Stabilizer for Multi-Machine Power Systems," #836, Proc. of the 17th International Conference on Intelligent system Applications to Power Systems (ISAP 2013), Tokyo, Japan, July 1-3, 2013.
- 374. Duong Quoc Huang, Nadarajah Mithulananthan, and Kwang Y. Lee, "Photovoltaic (PV) and BES Units Placement in Commercial Distribution Systems Considering Energy Loss," #F20130426-0865, The 1-st International Smart Grid Conference & Exhibition, Jeju, Korea, July 8-11, 2013.
- 375. Mohammad Reza Abedi and Kwang Y. Lee, "Performance Improvement of a Grid Connected PV System with Ultra-Capacitor Energy Storage," #F20130501-0406, The 1-st International Smart Grid Conference & Exhibition, Jeju, Korea, July 8-11, 2013.
- 376. Kyu-Ho Kim, Sang-Bong Rhee, Kyung-Bin Song, Kab-Ju Hwang, and Kwang Y. Lee, "#F20130512-0354, The 1-st International Smart Grid Conference & Exhibition, Jeju, Korea, July 8-11, 2013.
- 377. Mohammad Reza Abedi and Kwang Y. Lee, "Dynamic Model Analysis and Control of a Grid Connected Wind Energy System Integrated with a Super-Capacitor Bank," Paper No. GM2319, IEEE Power Engineering Society General Meeting, Vancouver, Canada, August 21-25, 2013.
- 378. Diego F. Estrada and Kwang Y. Lee, "Multi-Agent System Implementation in JADE Environment for Power Plant Control," Paper No. GM2309, IEEE Power Engineering Society General Meeting, Vancouver, Canada, August 21-25, 2013.
- 379. Guiying Wu and Kwang Y. Lee, "Modeling and Control of Power Conditioning System for Grid-connected Fuel Cell Power Plant," Paper No. GM2200, IEEE Power Engineering Society General Meeting, Vancouver, Canada, August 21-25, 2013.
- 380. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Fuzzy Modeling and Control of Boiler-Turbine Unit Using Clustering and Subspace Method," Paper No. GM2272, IEEE Power Engineering Society General Meeting, Vancouver, Canada, August 21-25, 2013.

K. Y. Lee September 2019 33

- 381. Ehsan Bijami, Malihe M. Farsangi, and Kwang Y. Lee, "Power System Stabilization Using Decentralized Hierarchical Generalized Predictive Control," Paper No. GM1897, IEEE Power Engineering Society General Meeting, Vancouver, Canada, August 21-25, 2013.
- 382. Kwang Y. Lee, "Modern Heuristic Methods Application in Power System," Panel Paper No. GM0609, IEEE Power Engineering Society General Meeting, Vancouver, Canada, August 21-25,
- 383. Rakibuzzaman Shah, Nadarajah Mithulananthan, Kwang. Y. Lee and Ramesh C. Bansal, "Low-Order Robust Damping Controller Design for Large-Scale PV Plants," Paper No. PESGM2014-000309, IEEE Power Engineering Society General Meeting, National Harbor, MD, July 27-August
- 384. Mohammad Reza Abedi and Kwang Y. Lee, "Modeling, Operation and Control of Wind Turbine with Direct Drive PMSG Connected to Power Grid," Paper No. PESGM2014-001215, IEEE Power
- Engineering Society General Meeting, National Harbor, MD, July 27-August 1, 2014. 385. Liangyu Ma, Zhiyan Wang, and Kwang Y. Lee, "Neural Network Inverse Control for the Coordinated System of a 600MW Supercritical Boiler Unit," Paper No. 1750, 19th World Congress of the International Federation of Automatic Control (IFAC 2014), Cape Town, South Africa, August 24-29, 2014.
- 386. Un-Chul Moon, Jaewoo Lim, Geon Go, and Kwang Y. Lee, "A comparative study of water wall model with a linear model and a neural network model," Paper No. 0284, 19th World Congress of the International Federation of Automatic Control (IFAC 2014), Cape Town, South Africa, August 24-29, 2014.
- 387. Sung-Won Park, Sung-Yong Son, Jong-Bae Park, Kwang Y. Lee, and Hyemi Hwang, "An Irradiation Prediction Model for Photovoltaic Power Generations Under Limited Weather Information," Paper No. 2142, 19th World Congress of the International Federation of Automatic Control (IFAC 2014), Cape Town, South Africa, August 24-29, 2014.
- 388. Linjun Shi, Jiajia Zhou, Lei Zhang, and Kwang Y. Lee, "Optimal Coordination of Multiple ESS-based Stabilizers and PSS in Multi-machine Power System for Damping Improvement," Paper No. 0643, 19th World Congress of the International Federation of Automatic Control (IFAC 2014), Cape Town, South Africa, August 24-29, 2014.
- 389. Sang Yule Choi and Kwang Y. Lee, "Direct Load Control System Design Using Active Database," Paper No. 2489, 19th World Congress of the International Federation of Automatic Control (IFAC
- 2014), Cape Town, South Africa, August 24-29, 2014.

 390. Wenlei Bai and Kwang Y. Lee, "Distributed Generation System Control Strategies in Micorgrid Operation," Paper No. 2116, 19th World Congress of the International Federation of Automatic Control (IFAC 2014), Cape Town, South Africa, August 24-29, 2014.
- Control (IFAC 2014), Cape Town, South Africa, August 24-29, 2014.
 391. Mohammad Reza Abedi and Kwang Y. Lee, "Smart Energy Storage System for Integration of PMSG-based Wind Power Plant," Paper No. PESGM2015-002157, IEEE Power Engineering Society General Meeting, Denver, CO, July 26-30, 2015.
 392. Wenlei Bai, Ibrahim Eke and Kwang Y. Lee, "Heuristic Optimization for Wind Energy Integrated Optimal Power Flow," Paper No. PESGM2015-002381, IEEE Power Engineering Society General Meeting, Denver, CO, July 26-30, 2015.
 393. Li Sun, Donghai Li and Kwang Y. Lee, "Decentralized PI Control with Improved Disturbance Observer for Power Plant Fluidized Bed Combustor," Paper No. PESGM2015-002675, IEEE Power Engineering Society General Meeting, Denver, CO, July 26-30, 2015.
 394. Liangyu Ma, Zhiyuan Gao, and Kwang Y. Lee, "Intelligent Model Predictive Optimal Control for a general Meeting, Denver, CO, July 26-30, 2015.
- 394. Liangyu Ma, Zhiyuan Gao, and Kwang Y. Lee, "Intelligent Model Predictive Optimal Control for a Large-Scale Supercritical Power Unit," Proc. of the 18th International Conference on Intelligent system Applications to Power Systems (ISAP 2015), Porto, Portugal, September 11-17, 2015.

 395. Wenlei Bai, Ibrahim Eke, and Kwang Y. Lee, "Improved Artificial Bee Colony Based on Orthognal Learning for Optimal Power Flow;" Present the 19th International Conference on United States and Conference on Continuous Conference on Conferenc
- Learning for Optimal Power Flow," Proc. of the 18th International Conference on Intelligent system Applications to Power Systems (ISAP 2015), Porto, Portugal, September 11-17, 2015.
- 396. Xiao Wu, Jiong Shen, Yiguo Li, and Kwang Y. Lee, "Fuzzy Modeling and Predictive Control of Power Plant Steam Temperature System," Paper No. 12, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 397. Sung-Yong Lim, Kyu-Ho Kim, Sang-Bong Rhee, Soo-Bae Kim, and Kwang Y. Lee, "Transient State Analysis of Lightning Surge on Distribution Systems," Paper No. 97, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 398. Awan Uji Krismanto, Mithulananthan Nadarajah, and Kwang Y. Lee, "Comprehensive Modelling and Small Signal Stability Analysis of RES-based Microgrid," Paper No. 27, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.

399. Mahmut Temel Ozdemir, Dursun Öztürk, Ibrahim Eke, Vedat Çelik, and Kwang Y. Lee, "Tuning of Optimal Classical and Fractional Order PID Parameters for Automatic Generation Control Based on the Bacterial Swarm Optimization," Paper No. 29, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.

400. Yuqiong Zhang, Yali Xue, Donghai Li, Haihang Wu, and Kwang Y. Lee, "Active Disturbance Rejection Control for Bed-inventory Balancing of CFB Boiler with Pant-leg Structure," Paper No. 55, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India,

December 8-11, 2015.

401. Ibrahim Eke, Müslüm Cengiz Taplamacıoğlu, and Kwang Y. Lee, "Robust Tuning of Power System Stabilizer by Using Orthogonal Learning Artificial Bee Colony," Paper No. 75, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.

- 402. Mohsen Bahreini, Malihe Maghfoori Farsangi, and Kwang Y. Lee, "Output Feedback Stabilization of Networked Brushless DC Motor with Random Delay via Markovian Jump Systems," Paper No. 76, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 403. Sung-Yong Lim, Kyu-Ho Kim, Sang-Bong Rhee, Soo-Bae Kim, and Kwang Y. Lee, "Transient State Analysis of Lightning Surge on Distribution Systems," Paper No. 97, IFAC Symposium on
- Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.

 404. Li Sun, Guiying Wu, and Kwang Y. Lee, "Sliding Mode Control of a Hybrid Fuel cell-Battery Power System," Paper No. 100, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 405. Chang Jin Boo, Jeong Hyuk Kim, Ho-Chan Kim, and Kwang Y. Lee, "Building Indoor Temperature Control Using Model Predictive Control in Cooling Systems," Paper No. 120, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 406. Jintaek Lim, Jaeseok Choi, Kwang Y. Lee, Duy-Phuong Nguyen Do, Ungjin Oh, and Yeonchan Lee, "Building Indoor Temperature Control Using Model Predictive Control in Cooling Systems," Paper No. 124, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 407. Ruifeng Shi and Kwang Y. Lee, "Multi-Objective Optimization of Electric Vehicle Fast Charging Stations with SPEA-II," Paper No. 125, IFAC Symposium on Control of Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015.
- 408. Seung-Jun Kim, Young-hwan Lee, and Kwang Y. Lee, "Multi-Objective Optimization of Electric Vehicle Fast Charging Stations with SPEA-II," Paper No. 125, IFAC Symposium on Control of
- Power and Energy Systems (CPES 2015), Delhi, India, December 8-11, 2015. 409. Dong, J.; Sun, L.; Li, D.; Lee, K.Y.; Wu, Z. Inverted decoupling based active disturbance rejection

- 409. Dong, J.; Sun, L.; Li, D.; Lee, K.Y.; Wu, Z. Inverted decoupling based active disturbance rejection control for multivariable systems. In Proceedings of the 54th IEEE conference on decision and control; IEEE Press: Osaka, Japan, 2015, pp. 7353-7358.
 410. M. Reza Abedi and Kwang Y. Lee, "Disturbance Rejection of Peak Current-Mode Control for Bidirectional Battery Charging," Paper No. PESGM2016-002086, IEEE Power Engineering Society General Meeting, Boston, MA, July 17-21, 2016. DOI: 10.1109/PESGM.2016.7741988
 411. Wenlei Bai and Kwang Y. Lee, "Modified Optimal Power Flow on Storage Devices and Wind Power Integrated System," Paper No. PESGM2015-002174, IEEE Power Engineering Society General Meeting, Boston, MA, July 17-21, 2016. DOI: 10.1109/PESGM.2016.7742033
 412. Wenlei Bai, Duehee Lee, and Kwang Y. Lee, "Stochastic Dynamic Optimal Power Flow Integrated with Wind Energy Using Generalized Dynamic Factor Model," Paper No. 0078, Proc. of the IFAC and CIGRE/CIRED Workshop on Control of Transmission and Distribution Smart Grids (CTDSG 2016), Prague, Czech Republic, October 11-13, 2016. 2016), Prague, Czech Republic, October 11-13, 2016.
- 413. Min-Kyu Baek, Jong-Bae Park, and Kwang Y. Lee, "An Improved Attractive and Repulsive Particle Swarm Optimization for Nonconvex Economic Dispatch Problems," Paper No. 0054, Proc. of the IFAC and CIGRE/CIRED Workshop on Control of Transmission and Distribution Smart Grids (CTDSG 2016), Prague, Czech Republic, October 11-13, 2016.
- 414. Dongyeon Lee, Daehyun Park, Jong-Bae Park, and Kwang Y. Lee, "Security-Constrained Unit Commitment Considering Demand Response Resource as Virtual Power Plant," Paper No. 0055, Proc. of the IFAC and CIGRE/CIRED Workshop on Control of Transmission and Distribution Smart Grids (CTDSG 2016), Prague, Czech Republic, October 11-13, 2016.
- 415. Xiao Wu, Jiong Shen, Yiguo Li, Junli Zhang, and Kwang Y. Lee, "Data-driven Predictive Control of Micro Gas Turbine Combined Cooling Heating and Power system," Paper No. 0039, Proc. of the IFAC and CIGRE/CIRED Workshop on Control of Transmission and Distribution Smart Grids (CTDSG 2016), Prague, Czech Republic, October 11-13, 2016.

- 416. Ma, Liangyu; Li, Fan; Cheng, Lei; Lee, Kwang Y., "An Intelligent Dual Optimization Approach for Improved Load Following of Supercritical Power Unit Based on Condensate Throttling," Proc. of the IFAC World Congress, Toulouse, France, July 9-14, 2017.
- 417. Fu, Hao; Pan, Lei; Xue, Yali; Sun, Li; Li, Donghai; Lee, Kwang Y.; Wu, Zhenlong; He, Ting; Zheng, Song, "Cascaded PI Controller Tuning for Power Plant Superheated Steam Temperature based on Multi-Objective Optimization," Proc. of the IFAC World Congress, Toulouse, France, July
- 418. Pan, Lei; Shen, Jiong; Wu, Xiao; Sun, Li; Lee, Kwang Y.; Wang, Haitao, "Model-Based Robust Adaptive Control for Power-Generating Systems in the Presence of Long Time Delay," Proc. of the IFAC World Congress, Toulouse, France, July 9-14, 2017.
- 419. Wu, Guiying; Lee, Kwang Y.; Sun, Li; Xue, Yali, "Coordinated Fuzzy Logic Control Strategy for Hybrid PV Array with Fuel-Cell and Ultra-Capacitor in a Microgrid," Proc. of the IFAC World
- Congress, Toulouse, France, July 9-14, 2017.

 420. Wenlei Bai, Duehee Lee, and Kwang Y. Lee, "A Multivariate Time Series Forecast Model for Wind and Storage Integrated System Operation," Paper No. 17PESGM1776, IEEE Power Engineering
- and Storage Integrated System Operation, Paper No. 1/PESGM1/76, IEEE Power Engineering Society General Meeting, Chicago, IL, July 16-20, 2017.
 421. Wenlei Bai and Kwang Y. Lee, "Stochastic optimal load flow with wind and energy storage systems," Panel session "Modern Heuristic Optimization Techniques for Renewable Energy Sources Integration with Energy Storage Devices: Optimization Under Uncertainty," Paper No. 17PESGM2673, IEEE Power Engineering Society General Meeting, Chicago, IL, July 16-20, 2017.
 422. Yanjian Peng, Yong Li, Kwang Y. Lee, Fang Liu, Fang Yang, and Bo Hu, "A Wind Power Integrated System Based on a Controllably Inductive Filtering and Compensation Method," Paper No. 17PESGM0485, IEEE Power Engineering Society General Meeting, Chicago, IL, July 16-20.
- No. 17PESGM0485, IEEE Power Engineering Society General Meeting, Chicago, IL, July 16-20, 2017.
- 423. Md Shariful Islam, Mithulananthan Nadarajah, and Kwang Y. Lee, "Characterization of Charging Load for a Large Number of EV Units in Distribution Grids," Paper No. 17PESGM1333, IEEE Power Engineering Society General Meeting, Chicago, IL, July 16-20, 2017.
- 424. Ruifeng Shi, Y. Yang, and Kwang Y. Lee, "Multi-Objective EV Charging Stations Planning Based on Two-Layer Coding SPEA-II," Paper No. 61, the 19th International Conference on Intelligent System Applications to Power Systems (ISAP 2017), San Antonio, Texas, USA, September 17-20, 2017.
- 425. Wenlei Bai, Ibrahim Eke, and Kwang Y. Lee, "Optimal Scheduling of Distributed Energy Resources by Modern Heuristic Optimization Technique," Paper No. 63, the 19th International Conference on Intelligent System Applications to Power Systems (ISAP 2017), San Antonio, Texas, USA, September 17-20, 2017.
- 426. Feyijimi R. Adegbohun and Kwang Y. Lee, "Real-Time Modeling, Simulation and Analysis of a Grid Connected PV System with Hardware In-Loop Protection," Proc. 2017 North American Power Symposium, September 17-19, 2017.
- 427. Soumyadeep Nag and Kwang Y. Lee, "Optimal Scheduling and Dispatch of Pumped Hydro Thermal Wind Systems," Proc. 2017 North American Power Symposium, September 17-19, 2017. 428. Guiying Wu and Kwang Y. Lee, "Optimal Placement of Distributed Generations with Semidefinite Optimization Technique," Paper No. 18PESGM1588, IEEE Power Engineering Society General Meeting, Portland, OR, August 5-9, 2018.
- 429. Linjun Shi, Ladier Fa, Jiangfeng Shi, Kemang Lin, Feng Wu, Kwang Y. Lee, Weiguo He, and Chun Wang "Accommodation Capacity for Wind Farm Based on the Static Security Constraints in Bulk Power Systems," Paper No. 18PESGM0815, IEEE Power Engineering Society General Meeting, Portland, OR, August 5-9, 2018.
- 430. Juanxia Xiao, Yong Li, Yi Tan, Chun hen, Yijia Cao, and Kwang Y. Lee, "A Robust Mixed-Integer Second-Order Cone Programming for Service Restoration of Distribution Network," Paper No. 18PESGM1314, IEEE Power Engineering Society General Meeting, Portland, OR, August 5-9,
- 431. Ruifeng Shi, Y. Yang, and Kwang Y. Lee "Bi-Level Day Ahead Optimization of V2G Dispatch Strategy Based on the Dynamic Discharging Electricity Price," Paper No. 99, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6,
- 432. J. Zhao, U. Oh, J. Choi, and Kwang Y. Lee "Probabilistic Reliability Evaluation on a Power System Considering Wind Energy with Energy Storage Systems in China," Paper No. 111, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.

433. L. Hu, Y. Li, W. Wang, Y. Tan, Y. Cao, and Kwang Y. Lee "Inertia Estimation of Power Grid with VSC-MTDC System," Paper No. 47, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.

Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
434. Ruifeng Shi, S. Li, C. Sun, and Kwang Y. Lee "Multi-Dispatch for Grid-Connected Microgrid with Robust Optimization Algorithm," Paper No. 101, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
435. U. Oh, J. Choi, K. H. Kim, J. Cha, and Kwang Y. Lee "A Study on Capacity Credit and ESS Evaluation for WTG and Multi-ESS in Power System," Paper No. 108, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
436. C. Chen, Lei Pan, J. Shen, Kwang Y. Lee, F. Zhang, L. Sun, X. Wu, J. Zhang, and W. Xue, "Control of Nonlinear Constrained Ultre Sympositical Poiler Typhine Units Using Offset Erec Output

of Nonlinear Constrained Ultra-Supercritical Boiler-Turbine Units Using Offset-Free Output-Feedback Stable MPC," Paper No. 39, The 10-th IFAC Symposium on Control of Power and Energy

- Feedback Stable MPC," Paper No. 39, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
 437. M. Zhu, J. Shen, and Kwang Y. Lee, "Modelling and Optimization of the Direct Air Cooling Power Generation Unit," Paper No. 151, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
 438. S. Nag and Kwang Y. Lee, "DFIM Based Variable Speed Operation of Francis Turbine for Efficiency Improvement," Paper No. 153, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
 439. M. Miao, Y. Li, Z. Wang, L. Ouyang, F. Liu, Kwang Y. Lee, and Y. Tan, "An Emergency Energy Management for AC/DC Multi Micro-Grids in Industrial Park," Paper No. 57, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018
- 440. J. Li, Y. Li, W. Wang, Y. Cao, Kwang Y. Lee, and F. Liu, "Fault-Ride through Control Strategy of Multi-Terminal High Voltage DC Systems," Paper No. 112, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.
 441. C. Zhu, L. Shi, F. Wu, Kwang Y. Lee, W. He, and K. Lin, "Capacity Optimization of Multi-Types of Distributed Generators Considering Reliability," Paper No. 4, The 10-th IFAC Symposium on Control of Power and Energy Systems (CPES 2018), Tokyo, Japan, September 4-6, 2018.

RESEARCH PROJECTS:

- "Optimal Coefficient Control of Distributed Parameter Systems," NSF Research Initiation Grant (GK-42093) for 1974-76.
- "IFIP Working Conference on Distributed Parameter Systems in Rome, Italy," (NSF ENG76-2.
- "System Identification and Optimal Controller Design for Flexible Structures," Air Force project for 1987-88.
- "Neural Network Flight Control System for Dynamic Flight Simulator," Environmental Tectonics 4. Corp. project for 1992-94.
- "Automatic Generation Control Development," DOE/Bonneville Power Administration project for 5. 1977-78.
- "Long-Term Dynamic Simulation Program Development," Houston Lighting & Power Company 6. project for 1981-82.
- "Optimal Reactive Power Planning," Houston Lighting & Power Company project for 1985-86. "Optimal Reactive Power Planning," Allegheny Power System project for 1987-96. 7.

- "New Techniques for Optimization of Long-Term Power System Expansion Planning," NSF project for 1987-90.
- "U.S.-Korea Joint Seminar on the Application of Expert Systems to Power System and Industries." NSF grant for 1989-90.
- "Engineering Research Equipment Grant: Microprocessor-based Controllers," NSF grant for 1989-11.
- "Intelligent Distributed Control for Nuclear Power Plants," DOE grant for 1989-93. 12.
- "A Knowledge-Based System for Reactive Power and Voltage Control," NSF grant for 1991-92.
 "International Conference on Power System Technology (ICPST "94), Bejing, China," NSF, October 1994-September 1995, Amount: \$10,000, PI. Project ECS-9424319. (100%)
 "Research and Curriculum Development for 2000 000 placement of the PI. Project EID 0212122.
- September 1992-August 1996, Amount: \$390,000 plus matching fund, PI Project EID-9212132. (60%)
- "Experimental Development of Power Reactor Intelligent Control," NSF/EPRI, January 1993-November 1997, Amount: \$300,000, Co-PI, Project ECS-9216504/RP8030-04. (50%)

- 17. "Intelligent Distributed Control for Power Plants and Power Systems," NSF, February 1993-February 1997, Amount: \$36,000, PI, Project INT-922303. (100%) "Power Systems Control," Kaiser Aluminum/H. S. Yang, September 1994-August 1996, Amount:
- \$21,000, PI. (100%)
- "Intelligent Control and Dynamic Simulation of Carbonate Fuel Cell Power Plant as Distributed Generation Systems," NSF SBIR/Fuel Cell Engineering, January 1996 - February 1997, Amount: \$21,000, PI. (100%)
- "Optimal Reactive Power Planning," Allegheny Power System, August 1987 December 1999, Amount: \$120,000, PI. (100%)
- "Development of Power System Intelligent Distributed Control", NSF, July 1997-June 2000, Amount: \$170,000, PI, Project INT-9605028. (100%)
- "Free-Model Based Intelligent control of Power Plants and Power Systems," NSF, January 1998 -December 2001, Amount: \$237,000, PI, Project ECS-9705105. (100%)
- "Development of a Dynamic Simulation Model for a Ship Service Fuel Cell Power Plant," Energy Research Corporation and U.S. Navy, January 1999-August 2002, Amount: \$75,000, PI, Contract N00167-97-C-0080. (100%)
- "Intelligent Monitoring System with High Temperature Distributed Fiberoptic Sensor for Power Plant Combustion Processes", DOE, January 2002 September 2006, Amount: \$200,000, PI, (40%) "Neural Network Supervisor Development for Hybrid Fuel Cell/Gas Turbine System," DOE STTR/FuelCell Energy, Inc. Phase II, September 2004 June 2006, Amount: \$70,000, PI, DOE Grant No. DE-FG02-02ER86140 (100%)
- "Development of System-Type Neural Network Architectures for Distributed Parameter Systems Using Algebraic Decomposition," NSF, September 2006 – August 2009, Amount: \$240,000 plus \$74,321 matching, PI (100%)
- "Design of Main Steam Temperature and Pressure Control System for Super Critical Boiler System," Doosan Heavy Industries and Construction Company, January 2006 – June 2006, Amount: \$60,000, PI (100%)
- "Development of Multi Objective Optimal Controller and Process Model for Ultra Super Critical Boiler System," Doosan Heavy Industries and Construction Company, September 2006 - August 2007, Amount: \$160,000, PI (100%)
- "Implementation of Auto-Tuning PID and MPOC for Steam Temperature Control on USC Boiler," Doosan Heavy Industries and Construction Company, February 2008 – August 2008, Amount: \$120,000, PI (100%)
- "Multi-Agent System Based Intelligent Distributed Control System for Power Plants", NSF, June 2008 - May 2012, Amount: \$330,000, PI (80%), Co-PIs: Robert Marks II (10%) and Ian Gravagne
- (10%).
 "International Collaborative R&D Program: Joint Research on Core Technologies and Development Strategies for Smart Grid," Korea Institute of Energy Technology Evaluation and Planning (KIETEP), October 2010 – December 2012, Amount: \$20,000, PI (100%).

RESEARCH AWARDS OR HONORS:

- IEEE Power and Energy Society (PES) Technical Committee Distinguished Service Award, August
- Pennsylvania State Engineering Society (PSES) Outstanding Research Award, 2001.
- Elected Fellow of IEEE, January 2001. Citation: For contributions to the development and implementation of intelligent system techniques for power plants and power systems control. Best Paper Award in the IEEE Power Engineering Society EDPG, July 2000. Title: An Autonomous
- Control System for Boiler-Turbine Units, IEEE Trans. on Energy Conversion, Vol. 11, No. 2, pp. 401-406.
- Nominated for Pennsylvania State Engineering Society (PSES) Premier Research Award, 2007.
- Third Place Award in Best Paper Competition at the International Conference on Intelligent System Applications to Power Systems (ISAP), November 4-8, 2007, Kaohsing, Taiwan. Title: An Adaptive Dynamic Matrix Control of a Boiler-Turbine System Using Fuzzy Inference