

Dr. Wei-Jen LEE

University of Texas at Arlington, USA

Selected Scholarly Contributions [Data Provided by **Scopus**]

Chang, H.-H., Lin, L.-S., Chen, N., Lee, W.-J.

[Particle-swarm-optimization-based nonintrusive demand monitoring and load identification in smart meters](#)
(2013) IEEE Transactions on Industry Applications, 49 (5), art. no. 6504752, pp. 2229-2236.

Ai, X., Wen, J., Wu, T., Lee, W.-J.

[A discrete point estimate method for probabilistic load flow based on the measured data of wind power](#)
(2013) IEEE Transactions on Industry Applications, 49 (5), art. no. 6514891, pp. 2244-2252.

Liu, H.-J., Li, K.-J., Lee, W.-J., Gao, H., Sun, Y.

[Development of frequency variable inverter based on SOPC and Nios II](#)
(2013) IEEE Transactions on Industry Applications, 49 (5), art. no. 6514503, pp. 2237-2243.

Quilumba, F.L., Lee, L.K., Lee, W.-J., Harding, A.

[Improving hydraulic system energy efficiency with high performance hydraulic fluids](#)
(2013) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 6547331, .

Abouheaf, M.I., Lee, W.J., Lewis, F.L.

[Dynamic formulation and approximation methods to solve economic dispatch problems](#)
(2013) IET Generation, Transmission and Distribution, 7 (8), pp. 866-873.

Kelley, J.P., Wetz, D.A., Reed, J.A., Cohen, I.J., Turner, G.K., Lee, W.-J.

[The impact of power quality when high power pulsed DC and continuous AC loads are simultaneously operated on a MicroGrid testbed](#)
(2013) 2013 IEEE Electric Ship Technologies Symposium, ESTS 2013, art. no. 6523704, pp. 6-12.

Deng, J., Wang, Q., Lee, W.-J., Xiong, J.

[Robust \$H_\infty\$ output-feedback synthesis optimal control to uncertain time-varying delay system with genetic algorithm](#)
(2013) Advanced Materials Research, 629, pp. 853-858.

Lee, W.-J., Quilumba, F.L., Shi, J., Huang, S.-H.

[Demand response An assessment of load participation in the ERCOT nodal market](#)
(2012) IEEE Power and Energy Society General Meeting, art. no. 6344981, .

Liu, H.-J., Li, K.-J., Gao, H.-X., Sun, Y., Sun, K.-Q., Lee, W.-J.

[Control and simulation of grid-connected micro-grid](#)
(2012) IEEE Power and Energy Society General Meeting, art. no. 6344985, .

Korkua, S.K., Lee, W.-J., Chen, H.-C.

[Power quality monitoring and control for DFIG wind generation](#)

(2012) IEEE Power and Energy Society General Meeting, art. no. 6344988, .

Shi, J., Lee, W.-J.

[Weighted parallel algorithm to improve the performance of short-term wind power forecasting](#)

(2012) IEEE Power and Energy Society General Meeting, art. no. 6344992, .

Tsai, C.-C., Lee, W.-J., Nashawati, E., Wu, C.-C., Lan, H.-W.

[PMU based generator parameter identification to improve the system planning and operation](#)

(2012) IEEE Power and Energy Society General Meeting, art. no. 6344984, .

Ding, Z., Lee, W.-J., Wetz, D., Tsai, C.-C.

[Evaluating the use of a MicroGrid as a power solution for Africa's rural areas](#)

(2012) IEEE Power and Energy Society General Meeting, art. no. 6345186, .

Chang, H.-H., Lin, L.-S., Chen, N., Lee, W.-J.

[Particle swarm optimization based non-intrusive demand monitoring and load identification in smart meters](#)

(2012) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6373990, .

Ai, X., Wen, J., Wu, T., Lee, W.-J.

[A discrete point estimate method for probabilistic load flow based on the measured data of wind power](#)

(2012) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6373999, .

Wang, L., Wang, K.-H., Lee, W.-J., Chen, Z.

[Power-Flow Control and Stability Enhancement of Four Parallel-Operated Offshore Wind Farms Using a Line-Commutated HVDC Link](#)

(2012) Green Energy and Technology, 78, pp. 385-414.

Deng, J., Wang, Q., Lee, W.-J., Xiong, J.

[Dynamical output feedback IL, optimal controller of time-varying delay system via lower-order](#)

(2012) Chinese Control Conference, CCC, art. no. 6390291, pp. 2214-2219.

Zhang, Z., Shrestha, B., Honang, H., Lee, W.-J., Shi, J., Fielder, J., Wetz, D.A., Jackson, A.

[Evaluation of the switching surges generated during the installation of legacy and smart electric metering equipment](#)

(2012) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 6229617, .

Yang, M., Fan, S., Lee, W.-J.

[Probabilistic short-term wind power forecast using componential Sparse Bayesian Learning](#)

(2012) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 6229594, .

Huang, F., Sarikprueck, P., Cheng, Y., Lee, W.-J.

[Design optimization of PHEV charging station](#)

(2012) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 6229606, .

Liu, H.-J., Li, K.-J., Lee, W.-J., Gao, H.-X., Sun, Y.

[Development of frequency variable inverter based on SOPC and Nios II](#)

(2012) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 6229596, .

Liu, Y., Shi, J., Yang, Y., Lee, W.-J.

[Short-term wind-power prediction based on wavelet transform-support vector machine and statistic-characteristics analysis](#)

(2012) IEEE Transactions on Industry Applications, 48 (4), art. no. 6200331, pp. 1136-1141.

Yang, M., Fan, S., Han, X., Lee, W.-J.

[Wind farm generation forecast based on componential sparse bayesian learning](#)

(2012) Dianli Xitong Zidonghua/Automation of Electric Power Systems, 36 (14), pp. 125-130+142.

Chang-Chien, L.-R., An, L.N., Lin, T.-W., Lee, W.-J.

[Incorporating demand response with spinning reserve to realize an adaptive frequency restoration plan for system contingencies](#)

(2012) IEEE Transactions on Smart Grid, 3 (3), art. no. 6213578, pp. 1145-1153.

Liang, S., Hu, Q., Lee, W.-J.

[A survey of harmonic emissions of a commercially operated wind farm](#)

(2012) IEEE Transactions on Industry Applications, 48 (3), art. no. 6183512, pp. 1115-1123.

Shi, J., Lee, W.-J., Liu, Y., Yang, Y., Wang, P.

[Forecasting power output of photovoltaic systems based on weather classification and support vector machines](#)

(2012) IEEE Transactions on Industry Applications, 48 (3), art. no. 6168891, pp. 1064-1069.

Zhou, J., Ayhan, B., Kwan, C., Liang, S., Lee, W.-J.

[High-performance arcing-fault location in distribution networks](#)

(2012) IEEE Transactions on Industry Applications, 48 (3), art. no. 6170559, pp. 1107-1114.

Lin, W., Wen, J., Cheng, S., Lee, W.-J.

[An investigation on the active-power variations of wind farms](#)

(2012) IEEE Transactions on Industry Applications, 48 (3), art. no. 6168890, pp. 1087-1094.

Chang, H.-H., Chen, K.-L., Tsai, Y.-P., Lee, W.-J.

[A new measurement method for power signatures of nonintrusive demand monitoring and load identification](#)

(2012) IEEE Transactions on Industry Applications, 48 (2), art. no. 6112713, pp. 764-771.

Lin, W., Wen, J., Ai, X., Cheng, S., Lee, W.

[Probability density function of wind power variations](#)

(2012) Zhongguo Dianji Gongcheng Xuebao/Proceedings of the Chinese Society of Electrical Engineering, 32 (1), pp. 38-46.

Chang, H.-H., Chen, K.-L., Tsai, Y.-P., Lee, W.-J.

[A new measurement method for power signatures of non-intrusive demand monitoring and load identification](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074429, .

Chen, K.-L., Tsai, Y.-P., Chen, N., Korkua, S.K., Lee, W.-J.

[Using coreless hall effect sensor for accurate current measurement in ZigBee based wireless sensor network](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074297, .

Zhou, J., Ayhan, B., Kwan, C., Limaye, O.D., Lu, M., Lee, W.

[Locating short-circuit faults in underground networks](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074404, .

Tsai, C.-C., Lee, W.-J., Huang, S.-H., Adams, J.

[Parameter identification for an industrial plant with in-house generators](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074401, .

Quilumba, F.L., Lee, W.-J., Huang, H., Wang, D.Y., Szabados, R.L.

[Load model development for next generation appliances](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074402, .

Shi, J., Lee, W.-J., Liu, Y., Yang, Y., Wang, P.

[Forecasting power output of photovoltaic system based on weather classification and support vector machine](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074294, .

Zhou, J., Ayhan, B., Kwan, C., Liang, S., Lee, W.

[High performance arcing fault localization in distribution networks](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074403, .

Lin, W., Wen, J., Cheng, S., Lee, W.-J.

[An Investigation on the active power variations of wind farms](#)

(2011) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 6074302, .

Cheng, Y., Lee, W.-J., Huang, S.-H., Adams, J.

[Dynamic parameter identification of generators for smart grid development](#)

(2011) IEEE Power and Energy Society General Meeting, art. no. 6039436, .

Fan, S., Wu, Y.-K., Lee, W.-J., Lee, C.-Y.

[Comparative study on load forecasting technologies for different geographical distributed loads](#)

(2011) IEEE Power and Energy Society General Meeting, art. no. 6039364, .

Sarikprueck, P., Korkua, S.K., Lee, W.-J., Lumyong, P.

[Developing important renewable energies in Thailand](#)

(2011) IEEE Power and Energy Society General Meeting, art. no. 6039440, .

Lee, W.-J., Blyden, B.K.

[A platform for information dissemination of MicroGrid technologies](#)

(2011) IEEE Power and Energy Society General Meeting, art. no. 6039464, .

Perryman Jr., V.D., Ng, K.C., Hausberger, B., Blyden, B.K., Lee, W.J.

[An advanced model for microgrid and energy independence](#)

(2011) Proceedings - 2011 IEEE Global Humanitarian Technology Conference, GHTC 2011, art. no. 6103641, pp. 232-237.

Lou, H., Mao, C., Lee, W.-J., Lu, J., Wang, D., Liu, H., Wang, S.

[Optimal pulse width modulation for current source converter based static exciter](#)

(2011) PEAM 2011 - Proceedings: 2011 IEEE Power Engineering and Automation Conference, 2, art. no. 6135100, pp. 469-473.

Chen, Y.-L., Lee, W.-J.

[Safety distance warning system with a novel algorithm for vehicle safety braking distance calculating](#)

(2011) International Journal of Vehicle Safety, 5 (3), pp. 213-231.

Shi, J., Lee, W.-J., Liu, Y., Yang, Y., Wang, P.

[Short term wind power forecasting using Hilbert-Huang Transform and artificial neural network](#)

(2011) DRPT 2011 - 2011 4th International Conference on Electric Utility Deregulation and Restructuring and Power Technologies, art. no. 5993881, pp. 162-167.

Zhang, Z., Lee, W.-J., Liu, M.

[PEM fuel cell and battery hybrid power supply system design based on fuel flow rate control](#)

(2011) DRPT 2011 - 2011 4th International Conference on Electric Utility Deregulation and Restructuring and Power Technologies, art. no. 5993904, pp. 284-291.

Sui, H., Sun, Y., Lee, W.-J.

[A demand side management model based on advanced metering infrastructure](#)

(2011) DRPT 2011 - 2011 4th International Conference on Electric Utility Deregulation and Restructuring and Power Technologies, art. no. 5994150, pp. 1586-1589.

Sui, H., Lee, W.-J.

[An AMI based measurement and control system in smart distribution grid](#)

(2011) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5890876, .

Shi, J., Liu, Y., Yang, Y., Lee, W.-J.

[Short-term wind power prediction based on wavelet transform-support vector machine and statistic characteristics analysis](#)

(2011) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5890873, .

Li, K., Zhao, J., Zhang, C., Lee, W.-J.

[A study on mode-switching control of TCSC based on conditional firing of thyristor](#)

(2011) IEEE Transactions on Power Delivery, 26 (2), art. no. 5613230, pp. 1196-1202.

Wang, L., Yeh, T.-H., Lee, W.-J., Chen, Z.

[Analysis of a commercial wind farm in Taiwan part II: Different current-limit reactors and load tap changers on system performance](#)

(2011) IEEE Transactions on Industry Applications, 47 (2), art. no. 5624586, pp. 954-964.

Chen, X., Sun, H., Wen, J., Lee, W.-J., Yuan, X., Li, N., Yao, L.

[Integrating wind farm to the grid using hybrid multiterminal HVDC technology](#)

(2011) IEEE Transactions on Industry Applications, 47 (2), art. no. 5675676, pp. 965-972.

Wang, L., Yeh, T.-H., Lee, W.-J., Chen, Z.

[Analysis of a commercial wind farm in Taiwan part I: Measurement results and simulations](#)

(2011) IEEE Transactions on Industry Applications, 47 (2), art. no. 5675675, pp. 939-953.

Chu, W.-C., Chen, Y.-P., Xu, Z.-W., Lee, W.-J.

[Multiregion short-term load forecasting in consideration of HI and load/weather diversity](#)

(2011) IEEE Transactions on Industry Applications, 47 (1), art. no. 5617262, pp. 232-237.

Xiao, W., Cheng, Y., Lee, W.-J., Chen, V., Charoensri, S.

[Hydrogen filling station design for fuel cell vehicles](#)

(2011) IEEE Transactions on Industry Applications, 47 (1), art. no. 5621903, pp. 245-251.

Dalke, G., Baum, A., Bailey, B., Daley, J.M., Duncan, B., Fischer, J., Hesla, E., Hoerauf, R., Hornbarger, B., Lee, W.-J., Love, D.J., McCullough, D., Mozina, C., Nichols, N., Padden, L., Patel, S., Pierce, A., Pillai, P., Poletto, G., Rifaat, R., Sanders, M.K., Shelton, J.M., Stringer, T.N., Weber, J., Wu, A., Young, R., Powell, L.

[Risks from utility supply disruption: Islanding protection for industrial and commercial generators](#)

(2011) IEEE Industry Applications Magazine, 17 (1), art. no. 5635419, pp. 47-56.

Wang, L., Lee, W.-J., Wu, J.-R., Chen, S.-J., Kang, J.-H., Lin, C.-Y., Huang, Y.-S.

[Performance analysis of a large-scale hybrid offshore wind and marine-current farm connected to a power grid via an HVDC link](#)

(2010) North American Power Symposium 2010, NAPS 2010, art. no. 5619956, .

Chen, X., Lee, W.-J.

[Wind generation development in the US and China](#)

(2010) North American Power Symposium 2010, NAPS 2010, art. no. 5618943, .

Fang, J., Sun, H., Ren, L., Wen, J., Lee, W.-J., Xu, Y., Peng, X.

[Development and field test of movable conduction-cooled high temperature SMES](#)

(2010) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 5614527, .

Li, K., Sun, Y., Lee, W.-J., Cui, J.

[Impedance control of thyristor controlled series capacitor to improve the transfer capability of remote wind farms](#)

(2010) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 5615942, .

Jain, H., Korkua, S., Lee, W.-J., Kwan, C.

[Detection and severity classification of rotor imbalance faults in induction machines](#)

(2010) Conference Record - IAS Annual Meeting (IEEE Industry Applications Society), art. no. 5615966, .

Wu, S.-S.J., Chang-Chien, L.-R., Lee, W.-J., Lu, C.-N., Chang, R.-F., Wu, C.-C., Lan, H.-W.

[Redesign of frequency controls for CPS evaluations in an isolated power system](#)

(2010) IEEE PES General Meeting, PES 2010, art. no. 5589550, .

Fan, S., Methaprayoon, K., Lee, W.-J.

[Multi-region load forecasting considering alternative meteorological predictions](#)

(2010) IEEE PES General Meeting, PES 2010, art. no. 5589869, .

Tiptipakorn, S., Lee, W.-J., Mao, C., Lu, J.

[Price naming on home appliance load controls in real-time pricing environment](#)

(2010) IEEE PES General Meeting, PES 2010, art. no. 5589975, .

Korkua, S., Jain, H., Lee, W.-J., Kwan, C.

[Wireless health monitoring system for vibration detection of induction motors](#)

(2010) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5489899, .

Cheng, Y., Lee, W.-J., Huang, S.-H., Adams, J.

[A hybrid method for the dynamic parameter identification of generators via on-line measurements](#)

(2010) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5489903, .

Chen, X., Sun, H., Yuan, X., Wen, J., Li, N., Yao, L., Lee, W.-J.

[Integrating wind farm to the grid using Hybrid Multi-terminal HVDC technology](#)

(2010) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5489900, .

Li, K., Zhao, J., Zhang, C., Lee, W.-J.

[Dynamic simulator for thyristor-controlled series capacitor](#)

(2010) IEEE Transactions on Industry Applications, 46 (3), art. no. 5438737, pp. 1096-1102.

Wang, L., Wang, K.-H., Lee, W.-J., Chen, Z.

[Power-flow control and stability enhancement of four parallel-operated offshore wind farms using a line-commutated HVDC link](#)

(2010) IEEE Transactions on Power Delivery, 25 (2), art. no. 5352307, pp. 1190-1202.

Ding, X., Lee, W.-J., Jianxue, W., Liu, L.

[Studies on stochastic unit commitment formulation with flexible generating units](#)

(2010) Electric Power Systems Research, 80 (1), pp. 130-141.

Li, K., Zhao, J., Lee, W.-J.

[Theoretical and experimental investigation of dual-impedance phenomenon in thyristor-controlled series capacitor](#)

(2010) Electric Power Components and Systems, 38 (8), pp. 918-936.

Wang, L., Lee, D.-J., Chen, L.-Y., Yu, J.-Y., Jan, S.-R., Chen, S.-J., Lee, W.-J., Tsai, M.-H., Lin, W.-T., Li, Y.-C., Blyden, B.K.

[A micro hydro power generation system for sustainable microgrid development in rural electrification of Africa](#)

(2009) 2009 IEEE Power and Energy Society General Meeting, PES '09, art. no. 5275244, .

Chu, W.-C., Chen, Y.-P., Xu, Z.-W., Lee, W.-J.

[Multi-region short-term load forecasting in consideration of heat index and load/weather diversity](#)

(2009) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5463968, .

Tiptipakorn, S., Lee, W.-J., Wang, L.

[Enabling customer demand and budget management in the real-time pricing environment](#)

(2009) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5463965, .

Cheng, Y., Xiao, W., Lee, W.-J., Yang, M.

[A new approach for emissions and security constrained economic dispatch](#)

(2009) 41st North American Power Symposium, NAPS 2009, art. no. 5484090, .

Li, W., Yeh, T.-H., Lee, W.-J., Chen, Z.

[Analysis of a commercial wind farm in Taiwan part II: Different current-limit reactors and load tap changers on system performance](#)

(2009) Conference Record - Industrial and Commercial Power Systems Technical Conference, art. no. 5463967, .

Tsai, C.-C., Cheng, Y., Liang, S., Lee, W.-J.

[The co-optimal bidding strategy of pumped-storage unit in ERCOT Energy Market](#)

(2009) 41st North American Power Symposium, NAPS 2009, art. no. 5484054, .

Wang, L., Lee, D.-J., Liu, J.-H., Chen, Z.-Z., Kuo, Z.-Y., Lee, W.-J., Hsu, J.-S., Chen, C.-M., Chiu, S.-S., Tsai, M.-H., Lin, W.-T., Li, Y.-C.

[A small hydro power \(SHP\) system in Taiwan using outlet-water energy of a reservoir: System introduction and measured results](#)

(2009) 2009 IEEE Power and Energy Society General Meeting, PES '09, art. no. 5275958, .

Wang, L., Chen, S.-S., Wei, C.-Y., Wang, K.-H., Lee, J.-D., Huang, C.-C., Lee, W.-J.

[Energy saving of a prototype fishing boat using a small wind turbine generator: Practical installation and measured results](#)

(2009) 2009 IEEE Power and Energy Society General Meeting, PES '09, art. no. 5275927, .