

To date, Dr. Xian Liu and his research collaborators have had more than 110 papers published or officially accepted, of which more than 50 papers are journal papers.

Selected Journal Papers (2005-2010)

- X. Liu and W. Xu, “Minimum emission dispatch constrained by stochastic wind power availability and cost”, *IEEE Transactions on Power Systems*, vol. 25, no. 3, pp. 1705-1713, August 2010.
- X. Liu, “On compact formulation of constraints induced by disjoint prohibited-zones”, *IEEE Transactions on Power Systems*, vol. 25, no. 4, pp. 2004-2005, 2010.
- X. Liu, “Economic load dispatch constrained by wind power availability: a wait-and-see approach”, accepted by *IEEE Transactions on Smart Grid*, June 2010.
- X. Liu and W. Xu, “Economic load dispatch constrained by wind power availability: a here-and-now approach”, *IEEE Transactions on Sustainable Energy*, vol. 1, no. 1, pp. 2-9, 2010.
- X. Liu, “Source-induced fading of a MISO optical satellite communication system described by beta functions”, accepted by *IET Optoelectronics*, February 2010.
- X. Liu, “Outage analysis of inter-satellite optical communication with reciprocal Pareto fading”, *Applied Optics*, vol. 49, no. 5, pp. 915-919, 2010.
- S. Huang, H. Wu, S. Chang, and X. Liu, “Novel sequence design for low-PMEPR and high-code-rate OFDM systems”, *IEEE Transactions on Communications*, vol. 58, no. 2, pp. 405-410, 2010.
- X. Liu and H. Wu, “Novel asterisk 16QAM constellation for COFDM”, *IEEE Communications Letters*, vol. 14, no. 7, pp. 596-598, 2010.
- X. Liu, “Solution refinement of a wireless optical system model with multi-level modulation”, *IET Electronics Letters*, vol. 45, no. 9, pp. 475-476, 2009.
- X. Liu, “Corrections to and comments on ‘Optimization of urban optical wireless communication systems’”, *IEEE Transactions on Wireless Communications*, vol. 8, no. 6, pp. 2763-2765, 2009.
- X. Liu, “Free-space optics optimization models for building sway and atmospheric interference using variable wavelength”, *IEEE Transactions on Communications*, vol. 57, no. 2, pp. 492-498, 2009.
- X. Liu, “Optimization of the wireless optical system with Bessel pointing loss factor”, *IEEE Communications Letters*, vol. 12, no. 8, pp. 584-586, 2008.
- X. Liu, “Set of binary sequences of length eight applied to reducing the OFDM PMEPR”, *IET Electronics Letters*, vol. 44, no. 22, pp. 1331-1332, 2008.
- X. Liu, “Restricting the OFDM PMEPR by a new set of sequences of length 16”, *IET Communications*, vol. 2, no. 10, pp. 1293-1300, 2008.
- X. Liu, “Gain and power optimization of the wireless optical system with multi-level modulation”, *Applied Optics*, vol. 47, no. 16, pp. 2915-2920, 2008.
- X. Liu, “A class of continuously differentiable filled functions for global optimization”, *IEEE Trans. SMC-A*, vol. 38, pp. 38 - 47, 2008.
- X. Liu, “A class of augmented filled functions”, *Computational Optimization and Applications*, vol. 33, no. 2/3, pp. 333-347, March 2006.

- S. G. Abdulsalam, W. Xu, W.L.A. Neves, and X. Liu, “Estimation of transformer saturation characteristics from inrush current waveforms”, *IEEE Transactions on Power Delivery*, vol. 21, no. 1, pp. 170–177, 2006.
- W. Xu, S. Abdulsalam, C. Yu, and X. Liu, “A sequential phase energization technique for transformer inrush current reduction, Part II: theoretical analysis and design guide”, *IEEE Transactions on Power Delivery*, vol. 20, no. 2, pp. 950-957, 2005.
- X. Liu, “The role of stochastic programming in communication network design”, *Computers and Operations Research*, vol. 32, no. 9, pp. 2329-2349, 2005.

Selected Conferences Papers (2005-2010)

- X. Liu, “Combined heat and power dispatch with wind power: a stochastic model and solutions”, Proc. of IEEE Power and Energy Society General Meeting (PESGM) 2010.
- X. Liu, “Impact of beta distributed wind power on emission mitigation dispatch”, Proc. of IEEE PESGM 2010.
- X. Liu and H-C Wu, “Analysis and evaluation of novel asterisk-16QAM constellation family and its application for PMEPR control in Golay-coded OFDM systems”, Proc. of IEEE International Conference on Communications (ICC) 2010.
- X. Liu, W. Xu, and C. Huang, “Economic load dispatch with stochastic wind power: model and solutions”, Proc. of IEEE PES Transmission and Distribution Conference and Exposition 2010.
- X. Liu, “Suppressing the OFDM PAPR with Star L-QAM”, Proc. of the 20th IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), 2009.
- X. Liu, “On the equivalence of quaternary codewords with the same PMEPR”, Proc. of PIMRC 2009.
- X. Liu, “Capacity allocation for long tailed traffic in packet switching networks”, Proc. of IEEE ICC 2009.
- X. Liu, “Small logarithmic S-boxes for small ciphers”, Proc. of IEEE Globecom 2008.
- X. Liu, “Alternative approaches of capacity assignment for delay bounded traffic”, Proc. of IEEE Globecom 2008.
- X. Liu, “Performance of the wireless optical communication system with variable wavelength and Bessel pointing loss factor”, Proc. of IEEE Wireless Communications and Networking Conference (WCNC) 2008.
- X. Liu, “On the availability of wireless sensor networks”, Proc. of IEEE WCNC 2008.
- X. Liu and W. Xu, “A global optimization approach for electrical machine designs”, Proc. of IEEE PESGM 2007.
- X. Liu, “A new approach for solving the multimodal economic load dispatch problem”, Proc. of IEEE PESGM 2007.
- S. G. Abdulsalam, W. Xu, W.L.A. Neves, and X. Liu, “Estimation of Transformer Saturation Characteristics from Inrush Current Waveforms”, Proc. of IEEE PESGM 2006.
- Z. Taha and X. Liu, “A PAPR reduction technique using expurgated cyclic codes for COFDM”, Proc. of Milcom 2006.
- X. Liu, “The Russian-doll bandwidth constraints for a compound arrival process”, Proc. of IEEE Globecom 2006.

- F. Xu, X. Liu, and C. Huang, "SAM: A new bandwidth constraint model for Diff-serv-aware MPLS networks", Proc. of IEEE Globecom 2006.
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- X. Liu, "A method to minimize the blocking probability for heterogeneous traffic flows", Proc. of IEEE WCNC 2006.
- X. Liu, "Bit error variances of DPSK and NCFSK in Nakagami-m channels", Proc. of IEEE WCNC 2006.
- X. Liu, "An approach to reduce the Erlang B probability of the M/M/2/2 system", Proc. of IEEE Globecom 2005.
- X. Liu, "An approach to reduce the Erlang C probability of the M/M/2 system", Proc. of IEEE ICC 2005, pp. 994-998.