

Recent Journal Publications

1. S.X. Du, B. Wu, K. Tian, D. Xu, N. Zargari, "A Novel Medium-Voltage Modular Multilevel DC-DC Converter," IEEE Trans. on Industrial Electronics, Vol. 63, Nov. 12, pp. 7939-7949, Dec. 2016.
2. A. Dekka, B. Wu, V. Yaramasu, N. Zargari, "Dual-Stage Model Predictive Control with Improved Harmonic Performance for Modular Multilevel Converter," IEEE Trans. on Industrial Electronics, Vol.63, No.10, pp. 6010-6019, Oct. 2016.
3. Q. Wei, B. Wu, D. Xu, N. Zargari, "A Natural-Sampling-Based SVM Scheme for Current Source Converter with Superior Low-Order Harmonics Performance," IEEE Trans. on Power Electronics, Vol.31, No.9, pp6144-6154, Sept. 2016.
4. S.X. Du, B. Wu, K. Tian, N. Zargari, G. Cheng, "An Active Cross-Connected Modular Multilevel Converter (AC-MMC) for Medium-voltage Motor Drive," IEEE Trans. on Industrial Electronics, Vol.63, No.8, pp4707-4717, Aug 2016.
5. Z. Wang, B. Wu, D. Xu, M. Cheng, L. Xu, "DC Link Current Ripple Mitigation for Current-Source Grid-Connected Converters under Unbalanced Grid Conditions," IEEE Trans. on Industrial Applications, Vol.63, No.8, pp4967-4977, Aug 2016.
6. K. Tian, B. Wu, S.X. Du, D. Xu, G. Cheng, N. Zargari, "A Simple and Cost-Effective Precharge Method for Modular Multilevel Converter by Using a Low-Voltage DC Source," IEEE Trans. on Power Electronics, Vol.31, No.7, pp5321-5329, July 2016.
7. F. Nejabatkhah, Y.W. Li, B. Wu, "Control Strategies of Three-Phase Distributed Generation Inverters for Grid Unbalanced Voltage Compensation" IEEE Transactions on Power Electronics, Vol.31, No.7, pp5228-5241, July 2016.
8. L.C. Tan, B. Wu, V. Yaramasu, S. Rivera, X. Guo, "Effective Voltage Balance Control for Bipolar-DC-Bus Fed EV Charging Station with Three-level DC-DC Fast Charger," IEEE Trans. on Industrial Electronics, Vol. 63, No.7, pp4031-4041, July 2016.
9. A. Dekka, B. Wu, N. Zargari, R. Lizana "A Space-Vector PWM Based Voltage Balancing Approach with Reduced Current Sensors for Modular Multilevel Converter," IEEE Trans. on Industrial Electronics, Vol.63, No.5, pp2734-2745, May 2016.
10. J.I. Leon, S. Kouro, L.G. Franquelo, J. Rodriguez, B. Wu, "The Essential Role and the Continuous Evolution of Modulation Techniques for Voltage Source Inverters in Past, Present and Future Power Electronics" IEEE Trans. on Industrial Electronics, Vol. 63, No.3, pp2688-2701, May 2016.
11. L. Wang, D.L. Zhang, Y. Wang, B. Wu, H.S. Athab, "Power and Voltage Balance Control of a Novel Three-phase Solid State Transformer Using Multilevel Cascaded H-Bridge Inverters for Microgrid Applications," IEEE Trans. on Power Electronics Vol.31, No.4, pp3289-3301, April 2016.
12. L.C. Tan, N. Zhu, B. Wu, "An Integrated Inductor for Eliminating Circulating Current of Parallel Three-level DC-DC Converter based EV Fast Charger," IEEE Transactions on Industrial Electronics, Vol. 63, No.3, pp1362-1371, March 2016.
13. K. Tian, B. Wu, M. Narimani, D. Xu, G. Cheng, N. Zargari, "A Capacitor Voltage Balancing Method for Nested Neutral Point Clamped (NNPC) Inverter", IEEE Trans. on Power Electronics, Vol.31, No.3, pp2575-2583, March 2016.
14. M. Narimani, B. Wu, N. Zargari, "A Novel Five-Level Voltage Source Inverter with Sinusoidal Pulse Width Modulator for Medium-Voltage Applications," IEEE Trans. on Power Electronics, Vol.31, No.3, pp1959-1967, March 2016.
15. Dekka, Appa rao; Wu, Bin; Zargari, Navid, "A Novel Modulation Scheme and Voltage Balancing Algorithm for Modular Multilevel Converter," IEEE Trans. on Industrial Applications (IAS), Jan/Feb 2016
16. K. Tian, J.C. Wang, B. Wu, D. Xu, G. Cheng, N. Zargari, "A Virtual Space Vector Modulation Technique for the Reduction of Common-Mode Voltages in both Magnitude and Third-Order Component," IEEE Trans. on Power Electronics, Vol.31, No.1 pp839-848, Jan 2016
17. X.Q. Guo, D. Xu, and B. Wu, "Common Mode Voltage Mitigation for Back-To-Back Current Source Converter with Optimal Space Vector Modulation," IEEE Trans. on power Electronics, Vol.31, No.1 pp688-697, Jan 2016.
18. L.C. Tan, B. Wu, S. Rivera, V. Yaramasu, "Comprehensive DC Power Balance Management in High-Power Three-Level DC-DC Converter for Electric Vehicle Fast Charging," IEEE Trans. on Power Electronics, Vol.31, No.1 pp89-100, Jan 2016.

19. M. Narimani, B. Wu, V. Yaramasu, Z.Y. Cheng and N.R. Zargari, "Finite Control-Set Model Predictive Control (FCS-MPC) of Nested Neutral Point Clamped (NNPC) Converter," IEEE Trans. on Power Electronics, Vol.30, No.12, pp7262-7269, Dec. 2015,
20. S. Iyer, B. Wu, Y.W. Li, "A Mathematical Model to Predict Voltage Fluctuations in a Distribution System with Renewable Energy Sources," International Journal of Emerging Electric Power Systems (IJEPPS), Dec 2015.
21. S. Hu, Z. Zhang, Y. Li, L. Luo, P. Luo, Y. Gao, Y. Chen, G. Zhou, B. Wu, C. Rehtanz, "A New Integrated Hybrid Power Quality Control System for Electrical Railway," IEEE Trans. on Industrial Electronics, Vol.62, No.10, pp6222-6232, Oct. 2015.
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26. V. Yaramasu, B. Wu, M. Rivera, M. Narimani, S. Kouro, and J. Rodriguez, "Generalized Approach for Predictive Control with Common-Mode Voltage Mitigation in Multilevel Diode-Clamped Converters", Journal of IET Power Electronics, Vol. 8, No.8, pp1440-1450, August 2015.
27. A.P. Hu, D. Xu, B. Wu, J. Wang, J.H. Su, "Reference-Trajectory-Optimized SVM for High-Power Current-Source Converters to Improve Harmonic Performance and Reduce Common-Mode Voltage", IEEE Trans. on Power Electronics, Vol.30, No.7, pp3488-3498, July 2015.
28. H.Y. Zhu, D.L. Zhang, H.S. Athab, B. Wu and Y. Gu, "PV Isolated Three-Port Converter and Energy Balancing Control Method for PV-Battery Power Supply Applications", IEEE Trans. on Industrial Electronics, Vol.62, No.6, pp3595-3606, June 2015.
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33. X.Q. Guo, D. Xu, B. Wu, "Overview of anti-islanding US patents for grid-connected inverters," Renewable & Sustainable Energy Reviews, Elsevier, Vol.40, pp. 311-317, December 2014.
34. V. Yaramasu, B. Wu, S. Kouro, S. Alepuz, "Predictive Control for Low Voltage Ride-Through Enhancement of Three-Level Boost and NPC Converter based PMSG Wind Turbine," IEEE Trans. on Industrial Electronics, Vol.61, No.12, pp6832-6843, December 2014.
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