Bibliography

[1] A. Emadi, S. S. Williamson, and A. Khaligh, "Power electronics intensive solutions for advanced electric, hybrid electric, and fuel cell vehicular power systems," *IEEE Transactions on Power Electronics*, vol. 21, no. 3, pp. 567–577, 2006.

[2] T. Jahns and S. Macminn, "Control techniques for improved high-speed performance of interior pm synchronous motor drives," *IEEE Transactions on Industry Applications*, no. 4, pp. 997–1004, 1991.

[3] Y. Sozer and D. A. Torrey, "Adaptive flux weakening control of permanent magnet synchronous motors," in *IEEE Industry Applications Conference*, vol. 1. IEEE, 1998, pp. 475–482.

[4] J. A. Tapia, F. Leonardi, and T. A. Lipo, "Consequent-pole permanent-magnet machine with extended field-weakening capability," *IEEE Transactions on Industry Applications*, vol. 39, no. 6, pp. 1704–1709, 2003.

[5] T. G. Wilson, "The evolution of power electronics," *IEEE Transactions on Power electronics*, vol. 15, no. 3, pp. 439–446, 2000.

[6] B. K. Bose, "The past, present, and future of power electronics [guest introduction]," *IEEE Industrial Electronics Magazine*, vol. 3, no. 2, pp. 7–11, 2009.

[7] M. K. Kazimierczuk, *Pulse-width modulated DC-DC power converters*. John Wiley & Sons, 2015.

[8] M. H. Rashid, *Power electronics handbook*. Butterworth-Heinemann, 2017.

[9] N. Mohan and T. M. Undeland, *Power electronics: converters, applications, and design*. John Wiley & Sons, 2007.

[10] F. Musavi, M. Craciun, D. S. Gautam, W. Eberle, and W. G. Dunford, "An llc resonant dc–dc converter for wide output voltage range battery charging applications," *IEEE Transactions on Power Electronics*, vol. 28, no. 12, pp. 5437–5445, 2013.

[11] D. S. Gautam, F. Musavi, W. Eberle, and W. G. Dunford, "A zero-voltage switching full-bridge dc–dc converter with capacitive output filter for plug-in hybrid electric vehicle battery charging," *IEEE Transactions on Power Electronics*, vol. 28, no. 12, pp. 5728–5735, 2013.

[12] S. S. Williamson, A. K. Rathore, and F. Musavi, "Industrial electronics for electric transportation: Current state-of-the-art and future challenges," *IEEE Transactions on Industrial Electronics*, vol. 62, no. 5, pp. 3021–3032, 2015.

[13] B. K. Bose, "Power electronics and ac drives," *Englewood Cliffs, NJ, Prentice-Hall, 1986, 416 p.*, 1986.

[14] B. Axelrod, Y. Berkovich, and A. Ioinovici, "Switched-capacitor/switched-inductor structures for getting transformerless hybrid dc–dc pwm converters," *IEEE Transactions on Circuits and Systems I: Regular Papers*, vol. 55, no. 2, pp. 687–696, 2008.

[15] Y. Jiao, F. Luo, and M. Zhu, "Voltage-lift-type switched-inductor cells for enhancing dc–dc boost ability: principles and integrations in luo converter," *IET Power electronics*, vol. 4, no. 1, pp. 131–142, 2011.

[16] ——, "Generalised modelling and sliding mode control for n-cell cascade super-lift dc–dc converters," *IET power electronics*, vol. 4, no. 5, pp. 532–540, 2011.

[17] L.-S. Yang, T.-J. Liang, and J.-F. Chen, "Transformerless dc–dc converters with high step-up voltage gain," *IEEE Transactions on Industrial Electronics*, vol. 56, no. 8, pp. 3144–3152, 2009.

[18] Y. Tang, D. Fu, T. Wang, and Z. Xu, "Hybrid switched-inductor converters for high step-up conversion," *IEEE Transactions on Industrial Electronics*, vol. 62, no. 3, pp. 1480–1490, 2015.

[19] E. H. Ismail, M. A. Al-Saffar, A. J. Sabzali, and A. A. Fardoun, "A family of single-switch pwm converters with high step-up conversion ratio," *IEEE Transactions on Circuits and Systems I: Regular Papers*, vol. 55, no. 4, pp. 1159–1171, 2008.

[20] ——, "High voltage gain single-switch non-isolated dc-dc converters for renewable energy applications," in *IEEE International Conference on Sustainable Energy Technologies*. IEEE, 2010, pp. 1–6.

[21] W. Li, D. Xu, B. Wu, Y. Zhao, H. Yang, and X. He, "Zero-voltage-switching dual-boost converter with multi-functional inductors and improved symmetrical rectifier for distributed generation systems," *IET Power Electronics*, vol. 5, no. 7, pp. 969–977, 2012.

[22] J. Cockcroft and E. Walton, "Experiments with high velocity positive ions," *Proc. R. Soc. Lond. A*, vol. 129, no. 811, pp. 477–489, 1930.

[23] G. Palumbo and D. Pappalardo, "Charge pump circuits: An overview on design strategies and topologies," *IEEE Circuits and Systems Magazine*, vol. 10, no. 1, pp. 31–45, 2010.

[24] J. A. Starzyk, Y.-W. Jan, and F. Qiu, "A dc-dc charge pump design based on voltage doublers," *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, vol. 48, no. 3, pp. 350–359, 2001.

[25] M. D. Seeman and S. R. Sanders, "Analysis and optimization of switched-capacitor dc–dc converters," *IEEE transactions on power electronics*, vol. 23, no. 2, pp. 841–851, 2008.

[26] M. S. Makowski, "Realizability conditions and bounds on synthesis of switched-capacitor dc-dc voltage multiplier circuits," *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, vol. 44, no. 8, pp. 684–691, 1997.

[27] F. H. Khan and L. M. Tolbert, "A multilevel modular capacitor-clamped dc–dc converter," *IEEE Transactions on Industry Applications*, vol. 43, no. 6, pp. 1628–1638, 2007.

[28] A. Chub, D. Vinnikov, F. Blaabjerg, and F. Z. Peng, "A review of galvanically isolated impedance-source dc–dc converters," *IEEE Transactions on Power Electronics*, vol. 31, no. 4, pp. 2808–2828, 2016.

[29] S. Johnson, A. Witulski, and R. Erickson, "A comparison of resonant topologies in high voltage dc applications," in *IEEE Applied Power Electronics Conference and Exposition*. IEEE, 1987, pp. 145–156.

[30] K.-B. Park, G.-W. Moon, and M.-J. Youn, "High step-up boost converter integrated with a transformer-assisted auxiliary circuit employing quasi-resonant operation," *IEEE Transactions on Power Electronics*, vol. 27, no. 4, pp. 1974–1984, 2012.

[31] W. Li, W. Li, X. He, D. Xu, and B. Wu, "General derivation law of nonisolated high-step-up interleaved converters with built-in transformer," *IEEE Transactions on Industrial Electronics*, vol. 59, no. 3, pp. 1650–1661, 2012.

[32] N. Vazquez, L. Estrada, C. Hernandez, and E. Rodriguez, "The tapped-inductor boost converter," in *IEEE International Symposium on Industrial Electronics*. IEEE, 2007, pp. 538–543.

[33] Q. Zhao and F. C. Lee, "High-efficiency, high step-up dc-dc converters," *IEEE Transactions on Power Electronics*, vol. 18, no. 1, pp. 65–73, 2003.

[34] Z. H. Shi, K. W. E. Cheng, and S. L. Ho, "Static performance and parasitic analysis of tapped-inductor converters," *IET Power Electronics*, vol. 7, no. 2, pp. 366–375, 2014.

[35] R.-J. Wai and R.-Y. Duan, "High step-up converter with coupled-inductor," *IEEE Transactions on Power Electronics*, vol. 20, no. 5, pp. 1025–1035, 2005.

[36] J. Morales-Saldana, E. C. Gutierrez, and J. Leyva-Ramos, "Modeling of switch-mode dc-dc cascade converters," *IEEE transactions on aerospace and Electronic Systems*, vol. 38, no. 1, pp. 295–299, 2002.

[37] J. Leyva-Ramos, M. Ortiz-Lopez, L. Diaz-Saldierna, and J. Morales-Saldana, "Switching regulator using a quadratic boost converter for wide dc conversion ratios," *IET Power Electronics*, vol. 2, no. 5, pp. 605–613, 2009.

[38] L. Chen, F. Zhu, M. Zhang, Y. Huo, C. Yin, and H. Peng, "Design and analysis of an electrical variable transmission for a series–parallel hybrid electric vehicle," *IEEE Transactions on Vehicular Technology*, vol. 60, no. 5, pp. 2354–2363, 2011.

[39] A. M. Andrade, L. Schuch, and M. L. d. S. Martins, "Very high voltage step-up integrated quadratic-boost-zeta converter," in *IEEE International Symposium on Industrial Electronics*. IEEE, 2015, pp. 422–427.

[40] F. L. Tofoli, A. E. Demian, C. A. Gallo, F. R. Vincenzi, E. A. Coelho, L. C. de Freitas, V. J. Farias, and J. B. Vieira, "Proposal of a switched mode power supply employing a quadratic boost converter and a new topology of soft-switched two-switch forward converter," in *Nineteenth Annual IEEE Applied Power Electronics Conference and Exposition*, vol. 3. IEEE, 2004, pp. 1384–1388.

[41] R. Giral, L. Martínez-Salamero, R. Leyva, and J. Maixé, "Sliding-mode control of interleaved boost converters," *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, vol. 47, no. 9, pp. 1330–1339, 2000.

[42] P. Kim, S. Lee, J. Park, and S. Choi, "High step-up interleaved boost converters using voltage multiplier cells," in *IEEE International Conference on Power Electronics and ECCE Asia*. IEEE, 2011, pp. 2844–2851.

[43] S. Kouro, M. Malinowski, K. Gopakumar, J. Pou, L. G. Franquelo, B. Wu, J. Rodriguez, M. A. Pérez, and J. I. Leon, "Recent advances and industrial applications of multilevel converters," *IEEE Transactions on industrial electronics*, vol. 57, no. 8, pp. 2553–2580, 2010.

[44] J. C. Rosas-Caro, J. C. Mayo-Maldonado, R. Salas-Cabrera, A. Gonzalez-Rodriguez, E. N. Salas-Cabrera, and R. Castillo-Ibarra, "A family of dc-dc multiplier converters," *Engineering Letters*, vol. 19, no. 1, pp. 57–67, 2011.

[45] Y. Xue, L. Chang, S. B. Kjaer, J. Bordonau, and T. Shimizu, "Topologies of single-phase inverters for small distributed power generators: an overview," *IEEE Transactions on Power Electronics*, vol. 19, no. 5, pp. 1305–1314, 2004.

[46] J. T. Bialasiewicz, "Renewable energy systems with photovoltaic power generators: Operation and modeling," *IEEE Transactions on industrial Electronics*, vol. 55, no. 7, pp. 2752–2758, 2008.

[47] A. Koran, K. Sano, R.-Y. Kim, and J.-S. Lai, "Design of a photovoltaic simulator with a novel reference signal generator and two-stage lc output filter," *IEEE Transactions on Power Electronics*, vol. 25, no. 5, pp. 1331–1338, 2010.

[48] M. Shen, A. Joseph, J. Wang, F. Z. Peng, and D. J. Adams, "Comparison of traditional inverters and z-source inverter for fuel cell vehicles," *IEEE Transactions on Power Electronics*, vol. 22, no. 4, pp. 1453–1463, 2007.

[49] A. R. Munoz and T. A. Lipo, "On-line dead-time compensation technique for open-loop pwm-vsi drives," *IEEE Transactions on power electronics*, vol. 14, no. 4, pp. 683–689, 1999.

[50] J.-W. Choi and S.-K. Sul, "A new compensation strategy reducing voltage/current distortion in pwm vsi systems operating with low output voltages," *IEEE transactions on industry applications*, vol. 31, no. 5, pp. 1001–1008, 1995.

[51] R. Adda, O. Ray, S. K. Mishra, and A. Joshi, "Synchronous-reference-frame-based control of switched boost inverter for standalone dc nanogrid applications," *IEEE Transactions on Power Electronics*, vol. 28, no. 3, pp. 1219–1233, 2013.

[52] H. Wang and F. Blaabjerg, "Reliability of capacitors for dc-link applicationsan overview," in *IEEE Energy Conversion Congress and Exposition*. IEEE, 2013, pp. 1866–1873.

[53] F. Z. Peng, "Z-source inverter," *IEEE Transactions on industry applications*, vol. 39, no. 2, pp. 504–510, 2003.

[54] Y. Huang, M. Shen, F. Z. Peng, and J. Wang, "z-source inverter for residential photovoltaic systems," *IEEE Transactions on Power Electronics*, vol. 21, no. 6, pp. 1776–1782, 2006.

[55] F. Z. P. et al, "Z-source inverter for motor drives," *IEEE transactions on power electronics*, vol. 20, no. 4, pp. 857–863, 2005.

[56] F. Z. Peng, X. Yuan, X. Fang, and Z. Qian, "Z-source inverter for adjustable speed drives," *IEEE power electronics letters*, vol. 1, no. 2, pp. 33–35, 2003.

[57] J. Anderson and F. Z. Peng, "A class of quasi-z-source inverters," in *IEEE Industry Applications Society Annual Meeting*. IEEE, 2008, pp. 1–7.

[58] Y. Tang, S. Xie, C. Zhang, and Z. Xu, "Improved z-source inverter with reduced z-source capacitor voltage stress and soft-start capability," *IEEE Transactions on Power Electronics*, vol. 24, no. 2, pp. 409–415, 2009.

[59] J. Anderson and F. Z. Peng, "Four quasi-z-source inverters," in *IEEE Power Electronics Specialists Conference*. IEEE, 2008, pp. 2743–2749.

[60] C. Cai, Y. Qu, and Y. Zhang, "Modeling and novel modulation of enhanced z-source inverter." *JCP*, vol. 8, no. 1, pp. 208–216, 2013.

[61] Y. Tang, S. Xie, and C. Zhang, "An improved-source inverter," *IEEE transactions on power electronics*, vol. 26, no. 12, pp. 3865–3868, 2011.

[62] M.-K. Nguyen, Y.-C. Lim, and S.-J. Park, "Improved trans-z-source inverter with continuous input current and boost inversion capability," *IEEE Transactions on Power Electronics*, vol. 28, no. 10, pp. 4500–4510, 2013.

[63] D. Cao, S. Jiang, X. Yu, and F. Z. Peng, "Low-cost semi-z-source inverter for single-phase photovoltaic systems," *IEEE Transactions on Power Electronics*, vol. 26, no. 12, pp. 3514–3523, 2011.

[64] H. Haimovich, R. H. Middleton, and L. De Nicoló, "Large-signal stability conditions for semi-quasi-z-source inverters: Switched and averaged models," in *IEEE Annual Conference on Decision and Control*. IEEE, 2013, pp. 5999–6004.

[65] S. Mishra, R. Adda, and A. Joshi, "Inverse watkins–johnson topology-based inverter," *IEEE Transactions on Power Electronics*, vol. 27, no. 3, pp. 1066–1070, 2012.

[66] A. Ravindranath, S. K. Mishra, and A. Joshi, "Analysis and pwm control of switched boost inverter," *IEEE Transactions on industrial electronics*, vol. 60, no. 12, pp. 5593–5602, 2013.

[67] S. S. Nag and S. Mishra, "Current-fed switched inverter," *IEEE Transactions on Industrial Electronics*, vol. 61, no. 9, pp. 4680–4690, 2014.

[68] E. Babaei, E. S. Asl, M. H. Babayi, and S. Laali, "Developed embedded switched-z-source inverter," *IET Power Electronics*, vol. 9, no. 9, pp. 1828–1841, 2016.

[69] M.-K. Nguyen, T.-V. Le, S.-J. Park, and Y.-C. Lim, "A class of quasi-switched boost inverters," *IEEE Transactions on Industrial Electronics*, vol. 62, no. 3, pp. 1526–1536, 2015.

[70] A.-V. Ho, T.-W. Chun, and H.-G. Kim, "Extended boost active-switched-capacitor/switched-inductor quasi-z-source inverters," *IEEE Transactions on Power Electronics*, vol. 30, no. 10, pp. 5681–5690, 2015.

[71] F. Gao, P. Loh, F. Blaabjerg, and C. Gajanayake, "Operational analysis and comparative evaluation of embedded z-source inverters," in *IEEE Power Electronics Specialists Conference*. IEEE, 2008, pp. 2757–2763.

[72] F. Gao, P. C. Loh, D. Li, and F. Blaabjerg, "Asymmetrical and symmetrical embedded z-source inverters," *IET power electronics*, vol. 4, no. 2, pp. 181–193, 2011.

[73] E. Babaei, E. S. Asl, and M. H. Babayi, "Steady-state and small-signal analysis of high-voltage gain half-bridge switched boost inverter," *IEEE Transactions on Industrial Electronics*, vol. 63, no. 6, pp. 3546–3553, 2016.

[74] E. Babaei and E. S. Asl, "High-voltage gain half-bridge z-source inverter with low-voltage stress on capacitors," *IEEE Transactions on Industrial Electronics*, vol. 64, no. 1, pp. 191–197, 2017.

[75] M.-K. Nguyen, Y.-C. Lim, and G.-B. Cho, "Switched-inductor quasi-z-source inverter," *IEEE Transactions on Power Electronics*, vol. 26, no. 11, pp. 3183–3191, 2011.

[76] M.-K. Nguyen, Y.-C. Lim, and J.-H. Choi, "Two switched-inductor quasi-z-source inverters," *IET Power Electronics*, vol. 5, no. 7, pp. 1017–1025, 2012.

[77] D. Li, P. C. Loh, M. Zhu, F. Gao, and F. Blaabjerg, "Cascaded multicell trans-z-source inverters," *IEEE Transactions on Power Electronics*, vol. 28, no. 2, pp. 826–836, 2013.

[78] M.-K. Nguyen, Y.-C. Lim, S.-J. Park, and D.-S. Shin, "Family of high-boost z-source inverters with combined switched-inductor and transformer cells," *IET Power Electronics*, vol. 6, no. 6, pp. 1175–1187, 2013.

[79] D. Li, P. C. Loh, M. Zhu, F. Gao, and F. Blaabjerg, "Generalized multicell switched-inductor and switched-capacitor z-source inverters," *IEEE Transactions on Power Electronics*, vol. 28, no. 2, pp. 837–848, 2013.

[80] F. Gao, P. C. Loh, R. Teodorescu, and F. Blaabjerg, "Diode-assisted buck–boost voltage-source inverters," *IEEE Transactions on Power Electronics*, vol. 24, no. 9, pp. 2057–2064, 2009.

[81] C. J. Gajanayake, F. L. Luo, H. B. Gooi, P. L. So, and L. K. Siow, "Extended-boost-source inverters," *IEEE Transactions on Power Electronics*, vol. 25, no. 10, pp. 2642–2652, 2010.

[82] D. Vinnikov, I. Roasto, and T. Jalakas, "Comparative study of capacitor-assisted extended boost qzsis operating in continuous conduction mode," in *IEEE Biennial Baltic Electronics Conference*. IEEE, 2010, pp. 297–300.

[83] H. Fathi and H. Madadi, "Enhanced-boost z-source inverters with switched z-impedance," *IEEE Transactions on Industrial Electronics*, vol. 63, no. 2, pp. 691–703, 2016.

[84] L. Huang, M. Zhang, L. Hang, W. Yao, and Z. Lu, "A family of three-switch three-state single-phase z-source inverters," *IEEE Transactions on Power Electronics*, vol. 28, no. 5, pp. 2317–2329, 2013.

[85] H. Cha, F. Z. Peng, and D.-W. Yoo, "Distributed impedance network (z-network) dc–dc converter," *IEEE Transactions on Power Electronics*, vol. 25, no. 11, pp. 2722–2733, 2010.

[86] P. C. Loh and F. Blaabjerg, "Magnetically coupled impedance-source inverters," *IEEE Transactions on Industry Applications*, vol. 49, no. 5, pp. 2177–2187, 2013.

[87] M.-K. Nguyen, Y.-C. Lim, and Y.-G. Kim, "Tz-source inverters," *IEEE Transactions on Industrial Electronics*, vol. 60, no. 12, pp. 5686–5695, 2013.

[88] H. F. Ahmed, H. Cha, S.-H. Kim, and H.-G. Kim, "Switched-coupled-inductor quasi-z-source inverter," *IEEE Transactions on Power Electronics*, vol. 31, no. 2, pp. 1241–1254, 2016.

[89] Y. P. Siwakoti, F. Blaabjerg, and P. C. Loh, "Quasi-y-source boost dc–dc converter," *IEEE Transactions on Power Electronics*, vol. 30, no. 12, pp. 6514–6519, 2015.

[90] W. Qian, F. Z. Peng, and H. Cha, "Trans-z-source inverters," *IEEE transactions on power electronics*, vol. 26, no. 12, pp. 3453–3463, 2011.

[91] R. Strzelecki, M. Adamowicz, N. Strzelecka, and W. Bury, "New type t-source inverter," in *IEEE Compatibility and Power Electronics*. IEEE, 2009, pp. 191–195.

[92] M. Adamowicz, J. Guzinski, R. Strzelecki, F. Z. Peng, and H. Abu-Rub, "High step-up continuous input current lcct-z-source inverters for fuel cells," in *IEEE Energy Conversion Congress and Exposition*. IEEE, 2011, pp. 2276–2282.

[93] P. C. Loh, D. Li, and F. Blaabjerg, "γ-z-source inverters," *IEEE transactions on Power Electronics*, vol. 28, no. 11, pp. 4880–4884, 2013.

[94] Y. P. Siwakoti, P. C. Loh, F. Blaabjerg, and G. Town, "Y-source impedance network," in *IEEE Applied Power Electronics Conference and Exposition*. IEEE, 2014, pp. 3362–3366.

[95] S. S. Nag and S. Mishra, "A coupled inductor based high boost inverter with sub-unity turns-ratio range," *IEEE Transactions on Power Electronics*, vol. 31, no. 11, pp. 7534–7543, 2016.

[96] H. Liu, Y. Ji, and P. Wheeler, "Coupled-inductor l-source inverter," *IEEE Journal of Emerging and Selected Topics in Power Electronics*, vol. 5, no. 3, pp. 1298–1310, 2017.

[97] Y. P. Siwakoti, P. C. Loh, F. Blaabjerg, and G. E. Town, "Effects of leakage inductances on magnetically coupled y-source network," *IEEE Transactions on Power Electronics*, vol. 29, no. 11, pp. 5662–5666, 2014.

[98] R. P. Chandrasena, F. Shahnia, S. Rajakaruna, and A. Ghosh, "Dynamic operation and control of a hybrid nanogrid system for future community houses," *IET Generation, Transmission & Distribution*, vol. 9, no. 11, pp. 1168–1178, 2015.

[99] F. Nejabatkhah and Y. W. Li, "Overview of power management strategies of hybrid ac/dc microgrid," *IEEE Transactions on Power Electronics*, vol. 30, no. 12, pp. 7072–7089, 2015.

[100] P. T. Baboli, M. Shahparasti, M. P. Moghaddam, M. R. Haghifam, and M. Mohamadian, "Energy management and operation modelling of hybrid ac–dc microgrid," *IET Generation, Transmission & Distribution*, vol. 8, no. 10, pp. 1700–1711, 2014.

[101] A. Emadi, K. Rajashekara, S. S. Williamson, and S. M. Lukic, "Topological overview of hybrid electric and fuel cell vehicular power system architectures and configurations," *IEEE Transactions on Vehicular Technology*, vol. 54, no. 3, pp. 763–770, 2005.

[102] S. Mishra and O. Ray, "Advances in nanogrid technology and its integration into rural electrification in india," in *IEEE International Power Electronics Conference*. IEEE, 2014, pp. 2707–2713.

[103] S.-H. Hwang and J.-M. Kim, "Dead time compensation method for voltage-fed pwm inverter," *IEEE Transactions on energy conversion*, vol. 25, no. 1, pp. 1–10, 2010.

[104] M. Mosa, R. S. Balog, and H. Abu-Rub, "High-performance predictive control of quasi-impedance source inverter," *IEEE Transactions on Power Electronics*, vol. 32, no. 4, pp. 3251–3262, 2017.

[105] S. R. Aghdam, E. Babaei, and S. Laali, "Maximum constant boost control method for switched-inductor z-source inverter by using battery," in *IEEE Industrial Electronics Society Conference*. IEEE, 2013, pp. 984–989.

[106] F. Z. Peng, M. Shen, and Z. Qian, "Maximum boost control of the z-source inverter," *IEEE Transactions on power electronics*, vol. 20, no. 4, pp. 833–838, 2005.

[107] Y. P. Siwakoti, F. Z. Peng, F. Blaabjerg, P. C. Loh, and G. E. Town, "Impedance-source networks for electric power conversion part i: a topological review," *IEEE Transactions on Power Electronics*, vol. 30, no. 2, pp. 699–716, 2015.

[108] O. Ellabban and H. Abu-Rub, "Z-source inverter: topology improvements review," *IEEE Industrial Electronics Magazine*, vol. 10, no. 1, pp. 6–24, 2016.

[109] M. Forouzesh, Y. P. Siwakoti, S. A. Gorji, F. Blaabjerg, and B. Lehman, "Step-up dc–dc converters: A comprehensive review of voltage-boosting techniques, topologies, and applications," *IEEE Transactions on Power Electronics*, vol. 32, no. 12, pp. 9143–9178, 2017.

[110] G. Zhang, B. Zhang, and Z. Li, "3-z-network boost converter," in *Designing Impedance Networks Converters*. Springer, 2018, pp. 55–82.

[111] M.-K. Nguyen, T.-D. Duong, and Y.-C. Lim, "Switched-capacitor-based dual-switch high-boost dc–dc converter," *IEEE Transactions on Power Electronics*, vol. 33, no. 5, pp. 4181–4189, 2018.

[112] G. Zhang, H. H.-C. Iu, B. Zhang, Z. Li, T. Fernando, S.-Z. Chen, and Y. Zhang, "An impedance network boost converter with a high-voltage gain," *IEEE Transactions on Power Electronics*, vol. 32, no. 9, pp. 6661–6665, 2017.

[113] M. Shen, J. Wang, A. Joseph, F. Z. Peng, L. M. Tolbert, and D. J. Adams, "Constant boost control of the z-source inverter to minimize current ripple and voltage stress," *IEEE Transactions on Industry Applications*, vol. 42, no. 3, pp. 770–778, 2006.

[114] A. Kumar, V. V. Ratnam, M. Reza, M. Raghuram, and S. K. Singh, "Modified boost derived hybrid converter: Redemption using fcm," *IEEE Transactions on Industry Applications*, 2017.

[115] M. Adamowicz and N. Strzelecka, "T-source inverter," *Przegl Elektrotechniczny*, vol. 85, no. 10, pp. 233–238, 2009.

[116] M. Adamowicz, R. Strzelecki, F. Z. Peng, J. Guzinski, and H. A. Rub, "New type lcct-z-source inverters," in *European Conference on Power Electronics and Applications*. IEEE, 2011, pp. 1–10.

[117] Y. P. Siwakoti, P. C. Loh, F. Blaabjerg, and G. E. Town, "T-z-source inverters," *IEEE Transactions on Power Electronics*, vol. 28, no. 11, pp. 4880–4884, 2013.

[118] W. Mo, P. C. Loh, and F. Blaabjerg, "Asymmetrical-source inverters," *IEEE Transactions on Industrial Electronics*, vol. 61, no. 2, pp. 637–647, 2014.

[119] Y. P. Siwakoti, F. Blaabjerg, V. P. Galigekere, A. Ayachit, and M. K. Kazimierczuk, "A-source impedance network," *IEEE Transactions on Power Electronics*, vol. 31, no. 12, pp. 8081–8087, 2016.

[120] J. Rodriguez, J.-S. Lai, and F. Z. Peng, "Multilevel inverters: a survey of topologies, controls, and applications," *IEEE Transactions on industrial electronics*, vol. 49, no. 4, pp. 724–738, 2002.

[121] J. Chavarria, D. Biel, F. Guinjoan, C. Meza, and J. J. Negroni, "Energy-balance control of pv cascaded multilevel grid-connected inverters under level-shifted and phase-shifted pwms," *IEEE Transactions on Industrial Electronics*, vol. 60, no. 1, pp. 98–111, 2013.

[122] Z. Ye, Y. Lei, W.-c. Liu, P. S. Shenoy, and R. C. Pilawa-Podgurski, "Design and implementation of a low-cost and compact floating gate drive power circuit for gan-based flying capacitor multi-level converters," in *IEEE Applied Power Electronics Conference and Exposition*. IEEE, 2017, pp. 2925–2931.

[123] A. Nabae, I. Takahashi, and H. Akagi, "A new neutral-point-clamped pwm inverter," *IEEE Transactions on industry applications*, no. 5, pp. 518–523, 1981.

[124] L. Wang, Q. Wu, and W. Tang, "Novel cascaded switched-diode multilevel inverter for renewable energy integration," *IEEE Transactions on Energy Conversion*, 2017.

[125] S. Vazquez, J. I. Leon, J. M. Carrasco, L. G. Franquelo, E. Galvan, M. Reyes, J. A. Sanchez, and E. Dominguez, "Analysis of the power balance in the cells of a multilevel cascaded h-bridge converter," *IEEE Transactions on Industrial Electronics*, vol. 57, no. 7, pp. 2287–2296, 2010.

[126] V. R. Vakacharla, A. K. Chauhan, M. Reza, and S. K. Singh, "Boost derived hybrid converter: Problem analysis and solution," in *IEEE International Conference on Power Electronics, Drives and Energy Systems*. IEEE, 2016, pp. 1–5.

[127] P. C. Loh, F. Gao, F. Blaabjerg, S. Y. C. Feng, and K. N. J. Soon, "Pulsewidth-modulated z-source neutral-point-clamped inverter," *IEEE Transactions on Industry Applications*, vol. 43, no. 5, pp. 1295–1308, 2007.

[128] A. Salem, E. M. Ahmed, M. Orabi, and M. Ahmed, "Study and analysis of new three-phase modular multilevel inverter," *IEEE Transactions on Industrial Electronics*, vol. 63, no. 12, pp. 7804–7813, 2016.

[129] A. K. Chauhan, M. Raghuram, and S. K. Singh, "Non-zero discontinuous inductor current mode in certain z-source converters," *IEEE Transactions on Power Electronics*, 2017.

[130] S. S. Nag, R. Adda, O. Ray, and S. K. Mishra, "Current-fed switched inverter based hybrid topology for dc nanogrid application," in *IEEE Industrial Electronics Society Conference*. IEEE, 2013, pp. 7146–7151.

[131] O. Ray and S. Mishra, "Boost-derived hybrid converter with simultaneous dc and ac outputs," *IEEE Transactions on Industry Applications*, vol. 50, no. 2, pp. 1082–1093, 2014.

[132] A. Mostaan, A. Baghramian, and H. Zeinali, "Discussion and comments on lz source inverter," *IEEE Transactions on Power Electronics*, vol. 30, no. 12, pp. 7308–7308, 2015.

[133] J.-S. Lai, T.-W. Chun, Q.-V. Tran, and J.-R. Ahn, "Ac output voltage control with minimization of voltage stress across devices in the z-source inverter using modified svpwm," 2006.

[134] M. H. B. Nozadian, E. Babaei, S. H. Hosseini, and E. S. Asl, "Steady-state analysis and design considerations of high voltage gain switched z-source inverter with continuous input current," *IEEE Transactions on Industrial Electronics*, vol. 64, no. 7, pp. 5342–5350, 2017.

[135] L. Pan, "Lz-source inverter," *IEEE Transactions on power electronics*, vol. 29, no. 12, pp. 6534–6543, 2014.

[136] V. R. Vakacharla, M. Raghuram, and S. K. Singh, "Hybrid switched inductor impedance source convertera decoupled approach," *IEEE Transactions on Power Electronics*, vol. 31, no. 11, pp. 7509–7521, 2016.

[137] V. Bist and B. Singh, "An adjustable-speed pfc bridgeless buck–boost converter-fed bldc motor drive," *IEEE Transactions on Industrial Electronics*, vol. 61, no. 6, pp. 2665–2677, 2014.

[138] A. K. Mishra and B. Singh, "Spv array powered non inverting buck-boost converter fed srm drive for water pumping," in *IEEE National Systems Conference*. IEEE, 2015, pp. 1–6.

[139] B. Sahu, G. Rincón-Mora *et al.*, "A low voltage, dynamic, noninverting, synchronous buck-boost converter for portable applications," *IEEE Transactions on Power Electronics*, vol. 19, no. 2, pp. 443–452, 2004.

[140] R. W. Erickson and D. Maksimovic, *Fundamentals of power electronics*. Springer Science & Business Media, 2007.