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- [7] Xiao P, Venayaga moorthy GK, Corzine KA. (2009). Seven-level shunt active power filter for high-power drive systems. *IEEE Trans. Power Electron* 24(1): 6-13. <https://doi.org/10.1109/tpel.2008.2005897>
- [8] Li J. (2010). Design, control and characteristics of multilevel active NPC converters for high power applications. PhD thesis of North Carolina State University.
- [9] Benyettou L, Benslimane T, Bentata K, Abdelkhalek O. (2015). Open transistor faults characterization novel method for cascaded h-bridge five-level three-phase shunt active power filter. *AMSE Journals, Modelling A* 88(1): 53-70.
- [10] Loutfi B, Tarak B, Khadija B. (2014). Faults diagnosis in cascaded h-bridge seven-level shunt active power filter. *The Mediterranean Journal of Measurement and Control* 10(4): 300-308.
- [11] Akagi H, Kanazawa Y, Nabae A. (1983). Generalized theory of the instantaneous reactive power filter. *Proceedings of International power electronics conference, Tokyo, Japan:* 1375-1386.
- [12] Benslimane T, Aliouane K. (2004). A new optimized SVPWM technique control for autonomous parallel active filter. *11th International Conference on Harmonics and Quality of Power.* – New York, USA, IEEE Xplore, *IEEE Transactions on Automatic Control:* 112-116. <https://doi.org/10.1109/ICHQP.2004.1409338>
- [13] Nabae A, Takahashi I, Akagi H. (1981). A new neutral – point clamped PWM inverter. *IEEE Transactions on Industry Applications IA-17(5):* 518-523. <https://doi.org/10.1109/tia.1981.4503992>
- [14] Thongprasri P. (2011). A 5-level three-phase cascaded hybrid multilevel inverter. *International Journal of Computer and Electrical Engineering* 3(6): 789-794.