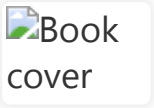

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Implementation of an Efficient SVPWM Technique to a Cascaded Multilevel Inverter-Based SAF

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Abstract

In this paper, an efficient space vector modulation (SVPWM) technique is implemented to a shunt active filter (SAF) for harmonic mitigation under extreme nonlinear loading. When a multilevel inverter operates as a SAF, it should be able to generate harmonic current with an extended bandwidth compared to its open-loop operation. Many conventional SVPWM techniques require higher memory for the storage of switching states, and the computation time also increases exponentially with