

# **A NEW TOPOLOGY FOR CASCADED MULTILEVEL INVERTERS WITH SINGLE DC INPUT**

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## **ABSTRACT**

This paper proposes two methodologies that are extended from the existing Cascaded Multilevel Inverter Employing Three-Phase Transformers and Single DC Input topology. The proposed circuit configuration can reduce the number of switches required to convert the input DC power into AC power when compared with traditional method. However Simulation results reveals that the THD variation of the proposed methods have no considerable changes from the existing one even though we reduce the number of switches. To verify the performance of the proposed approach, we implemented computer-aided simulations using Matlab/Simulink.

**KEY WORDS:** Cascaded multilevel inverter, harmonics, switching phase angle control, three-phase transformers.