

A comparison on PSO variants in calculating HEPWM switching angles for a cascaded H-bridge multilevel inverter

Abstract

This paper presents a comparison study on the application of various PSO algorithms in calculating the Pulse Width Modulation (PWM) switching angles of a cascaded H-bridge multilevel inverter. It aims to investigate the behavior of the PSO algorithm in three different variants. The results are compared to determine the most suitable algorithm for optimizing the multilevel inverter output voltage through Harmonic Elimination PWM (HEPWM) switching technique.