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| **Title:** | DSP based Three Level PWM for Two Phase VSI | | |
| **Author(s) Name:** | Muhibul Haque Bhuyan, Kazi Mujibur Rahman, and Mohammad Ali Choudhury | | |
| **Contact Email(s):** | muhibulhb@aiub.edu | | |
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| **Abstract:** |  |
| Abstract— Three level PWM schemes offer more output voltage and less switching losses as compared to the two-level PWM strategy. For inductive loads, due to lack of zero voltage freewheeling path in a three level PWM, the load current waveform distorts and contains unwanted low order harmonics. Analysis of inverter performance with three-level PWM driving inductive load has not been investigated so far. In this paper the performance of a two-phase inverter driving a two-phase induction motor is investigated with three-level PWM technique. The three-level PWM scheme is modeled using regular sampling strategy. The scheme is implemented with a TMS320C50 digital signal processor and tested on a prototype MOSFET inverter with a 0.5HP two-phase motor load. The experimental performance is found in good agreement with the theoretical results, validating the theoretical model of the three-level PWM for two-phase VSI. | |