Abstract

The Space Vector Pulse Width Modulation (SVPWM) is used for three phase bridge Inverter to produce AC output voltage of desired magnitude and frequency. The purpose of controller is to produce regulated output voltage with low distortion under varying load conditions. A triangular carrier based space vector pulse width modulation is developed in MATLAB using Xilinx block set and executed in Field Programmable Gate Array (FPGA). The gate switching pulses required for 3-Ø bridge inverter are generated through FPGA controller which are further amplified to turn on IGBT switches by the use of driver circuit.

References

Implementations of Triangular Carrier based Space Vector Modulation for 3-Ø Bridge Inverter using FPGA

- Xilinx System Generator V2.1 Reference Guide.
Computer Science  

Index Terms

Circuits And Systems

Keywords

Field programmable gate arrays (FPGA)  
triangular carrier based space vector pulse width modulation  
current controlled  
voltage source inverter (CC-VSI)