













Instead of using a constant DC input to the inverter, a buck boost converter has been connected at the front end of the inverter. Therefore the same circuit can be employed for different AC loads connected to the inverter. The inverter output voltage can be varied according to the load requirements by varying the input to the inverter.

The PWM technique along with the closed loop control using the PI controller has lead to the reduction of the THD. By implementing this technique to the inverter which feed the AC machines so as to control the speed and torque. The ripples in the speed waveform are very less and also in this compared to open loop PWM techniques. This paper validated results are an examined with less settling time and less harmonics in the output.

## 8. Future Scope

The proposed SVPWAM modulation method has only been verified on the voltage source inverter, thus the future work should be done with the buck-boost current source inverter for multilevel, such as current-fed quasi-Z-source inverter topology. The discontinuous operation mode needs to be explored further to see if it can be utilized in order to bring some good features for the inverter.

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## Author Profile



**S. Narasimha** born on 10th Aug 1979, obtained B.Tech degree in 2003 and M.Tech degree in 2009 with a specialization in **Power Electronics & Industrial Drives** from JNTUHCEH, INDIA. Research Scholar in Dept Of EEE, JNTUH.



**M. Sushama**, born on 8th Feb 1973, .Obtained her B.Tech degree in 1993 and M.Tech degree in 2003 with a specialization in **Electrical Power Systems** from JNTU, INDIA. She obtained her Ph.D. from JNTU Hyderabad, India in 2009 in the area of "**Power Quality**" using **Wavelet Transforms** Presently she is working as **Professor** in the Department of EEE, JNTUH College of Engineering, Kukatpally, Hyderabad.