Abstract

In almost all applications of power electronics there is always an influence of harmonics and noise in voltage and current waveforms. In this paper, a harmonic rejection technique has been proposed based on neural network platform. An ANN model has been developed which when trained can remove harmonics from the output of the buck converter. In this paper, a buck converter has been designed in MATLAB environment and the output voltage waveform is corrupted with harmonics. The corrupted output voltage is then passed through an ANN model. The developed model will remove the harmonics by hetero associative neural network approach. In the whole process a buck converter is simulated, one ANN model is developed, which is trained and tested on MATLAB platform.

References

geophysical records, Geophysics.
- F Martin, P A Munoz, 2010, Deharmonics, A method for harmonic noise removal on vibrosesis data, EAGE.

**Index Terms**

Computer Science  
Signal Processing

**Keywords**

Buck Converter  
Harmonic Noise  
Hetero Associative Neural Network  
Target Detection

Filter Design