Design of Band-Pass Filter using Artificial Neural Network

Abstract

For the design of Band pass FIR filters complex calculations are involved. Mathematically, by substituting the value of pass-band ripple, stop band attenuation, pass-band frequency $F_1$, pass-band frequency $F_2$, sampling frequency in any of the methods from window method, frequency sampling method or optimal method we can get the values of filter coefficients $h(n)$. Here, window method is used in which Kaiser window method has been chosen preferably because of the presence of ripple factor ($\alpha$). Here, I have design Band pass FIR filter using artificial neural network which gives optimum result i.e. the difference between the actual and desired output is minimum.

References


Index Terms

Computer Science  
Artificial Intelligence
Keywords

Window functions  Artificial neural network.