

A NEURAL APPROACH TO PERFORM NOISE REDUCTION OVER FIR FILTER

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ABSTRACT

A signal to be digitized is passed through an analog anti-aliasing filter just prior to the Analog to Digital Converter to remove those components that the digitizing process would mirror to the needed frequency band (aliases). At high sampling rates, and the associated frequencies, we require some anti-aliasing filter that should be simple and inexpensive. The presented work is about the optimization of FIR filter using neural network. The work is implemented to remove the non linearity over the optical signal. The obtained results shows the effectiveness of the work, in terms of more linear the signal is, with the reduction of error over the signal.

KEYWORDS: FIR, Filter, Neural Network, Noise