



Research Article



## Reducing of EMSE Using Affine Combination of Adaptive Filters

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### ABSTRACT

We propose an adaptive affine combination of two adaptive filters in that combination select one is fast and one slow. In this paper we proposed LMS, NMLS and CMA algorithm technique. By using these algorithm techniques we calculate the mixing parameter ( $\eta$ ) at every instant and the performance of the measurement parameter that is excess mean square error EMSE is varied with the step size ( $\mu$ ) according to the variation the step size we achieve the good convergence rate and its adaptation is also taken into account in the transient analysis and steady state analysis. The proposed combination should acquire the good convergence properties for all kinds of stationary and non stationary environments. The resulting combination should profit than single filter technique.

**Keywords:** Adaptive filters, transient analysis, EMSE, CMA, steady state analysis.

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