

ROBUSTNESS FOR IIR FILTER BY MEANS REGULARIZATION PARAMETER

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ABSTRACT

The new Robust RLS algorithm which proposed here gives the minimization of cost function subject to a time-dependent constraint on the norm of the filter update. We also present some theoretical results regarding the asymptotic behaviour of the various algorithms which gives comparative results for Noise cancellation. The New Robust Recursive Least Square Algorithm (RRLS Algorithm) offers a good solution to this problem because of its regular adaptation of regularization parameter. RRLS is an adaptive scheme in which regularization parameter is varying by using L1 Norm. The Performance of the proposed scheme will evaluate in the context of convergence rate, absolute error for an IIR Filter.

KEYWORDS-AdaptiveAlgorithm: RLS, RRLS, Regularizing parameter.