

NON LINEAR SYSTEM IDENTIFICATION USING ROBUST COST FUNCTIONS AND GENETIC ALGORITHM

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ABSTRACT

The paper demonstrates the use of alternative cost functions for identification of non linear systems which are not affected by outliers. Conventionally error based cost function is used for identification which does not provide satisfactory weight update when the training signal is corrupted with random outliers thus leading to incorrect estimation of parameters of system. Using these alternative cost functions identification performance is satisfactory even with outliers.

Keywords: Direct Modeling, robust cost function, Genetic Algorithm