# VARIABLE SELECTION IN REGRESSION USING ARTIFICIAL NEURAL NETWORK

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## Abstract

We propose a new method for subset selection in regression. The proposed method is based on Artificial Neural Network (ANN)". Since ANN's have tremendous ability to extract the relationship between dependent and independent variables, the proposed criterion is a most general criterion for subset selection. Moreover, it is most useful in case of nonlinear regression model or when the assumption of normality of error distribution does not hold good. For the proposed criterion, a multilayer feed forward network with one hidden layer is constructed. The proposed method is illustrated with the help of simulated data. It is shown that the proposed method yields satisfactory results.

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