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APPLICATION OF TIME LAG RECURRENT NETWORK - RAINFALL FORECASTING

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Abstract

One of the important applications of artificial neural networks is time series prediction. Rainfall is time series on which number of researcher working from long back, as rainfall is main source of water to the world and most of agriculture planning depends on it. A time series is a sequence of data points, measured typically at successive times, spaced at (often uniform) time intervals. Time series forecasting is the use of a model to forecast future events based on known past events: to forecast future data points before they are measured. Numerous rainfall models have been introduced by the researchers. Unfortunately no two models forecast the same rainfall for the same area. The artificial neural networks are popular to solve the non linear problems. Neural networks are applicable in virtually every situation in which a relationship between the predictor variables and predicted variables exists, even when that relationship is very complex and not easy to articulate in the usual terms of correlations or differences between groups. This paper is an attempt to find the best learning rule and activation function for the rainfall forecasting using Time lag recurrent networks (TLRN).

Keywords: artificial neural network, Time lag recurrent networks, momentum, delta bar delta, Levenberg Marquardt.