OPTIMIZATION OF BACK PROPAGATION NEURALNETWORK FOR RAIN FORCASTING

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Abstract

Deep learning has recently emerged as a viable method for addressing difficult problems and analyzing massive amounts of data. The Mahanadi river basin at the appropriate scale is generally the most logical geographical unit of stream flow analysis and water resources management. We created a method of rainfall forecasting model by analyzing rainfall data from India and predicting future rainfall using optimized neural networks. We will predict weather data time series especially long-range rainfall over Mahanadi river basin. The purpose of this research is to provide a thorough overview of current scientific studies for short-term Region, Month, and temperature-based rainfall forecasting on a geographical scale. This article offers a thorough examination and comparison of several neural network topologies utilized by experts for rainfall prediction. The article also addresses the difficulties encountered while using various computational models for yearly/monthly rainfall forecasts. Furthermore, the article provides several accuracy metrics used by experts to evaluate the performance of ANN

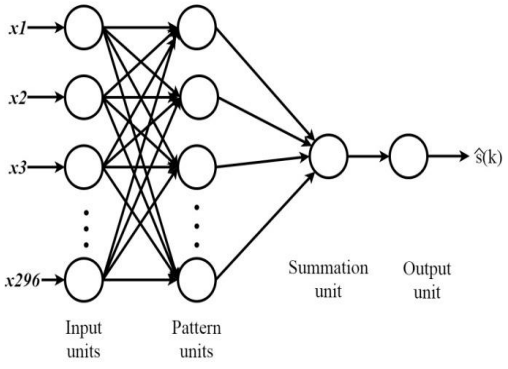

Figure:1 O-BPNN Architecture

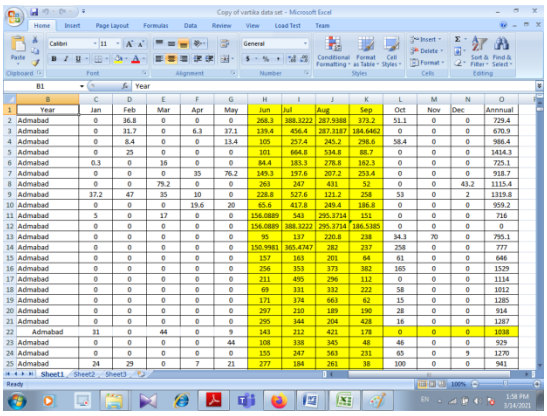

Fig.2.srceen shot of Dataset of different stations

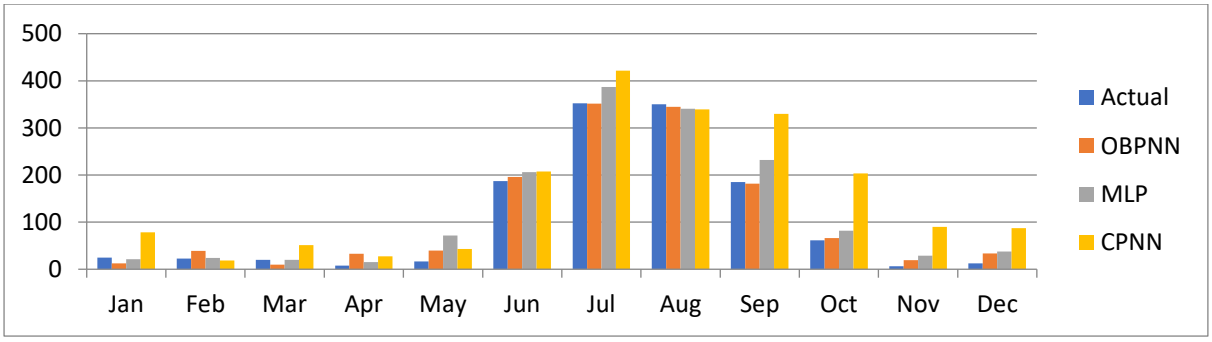

Figure 3 Comparative analysis of proposed technique with well known methods

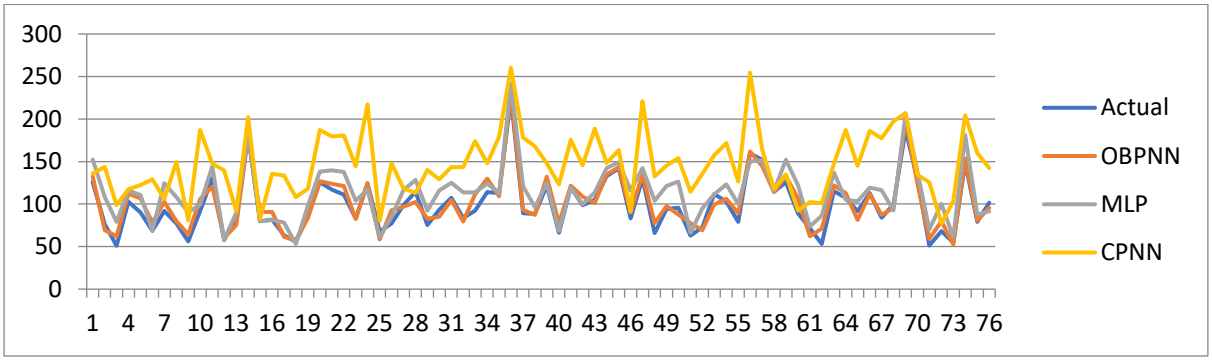

Figure 4 Comparative analysis of proposed technique with well known methods

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