



# Stock Market Indices Prediction with Various Neural Network Models

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## Abstract

Stock market Indices prediction is one of the most important issues in the financial field. Although many prediction models have been developed during the last decade, they suffer a poor performance because indices movement is highly non stationary and volatile dynamic process. Artificial Neural Network (ANN) is a technique that is heavily researched and widely used in stock market prediction [1][6]. However, there is no formal method to determine the optimal neural network for prediction purpose in the literature. This paper describes various Neural Network models for stock prediction. The prediction was done by, Modular Neural Network, ARIMA-based Neural Networks, Genetic Algorithm, Recurrent Network, Back propagation Network, Radial Basis Function, Branch Network, Functional Link Artificial Neural Network, Feed Forward Neural Network, Fuzzy Neural Network etc [8]. Analysis of all these Neural Network models is performed in this paper, as well as the future work.

**Keywords:** Stock prediction, ANN, RBF, Genetic algorithm, fuzzy

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