**Nepal Stock Market Prediction using Back Propagation Algorithm**

Ashish Shrestha

M.Sc.CSIT 2nd Semester

Tribhuvan University

**ABSTRACT**

Stock market is an industry where lots of data is generated daily and benefits are reaped on the basis of accurate prediction. Many people invest in stock market having some prediction and more luck. A decision in stock market plays an important role in the investor’s life. Also, stock market is a very complex system and non-linear in nature. So, then it is very difficult to analyse all the impacting factors before making a decision. Making decision with traditional techniques may be time consuming and may not ensure the reliability of the prediction.

Artificial Neural Network (ANN) is self-learning mechanism and used widely in diverse fields of science, communication, Internet of Things, and many other fields information technology. Back propagation is supervised learning for multi-layer perceptrons. It is one of the approach to implement idea of neural networks. Back propagation algorithm looks for the minimum value of the error function in weight space. The weights that minimizes the error function is then considered to be a solution to the learning problem.

This paper will be discussing the use of Back propagation neural network algorithm to predict the stock market by stabling a three-tier structure of the neural network, namely input layer, hidden layer and output layer.

**Keywords**: *Artificial Neural Network, Backpropagation, Internet of Things, Neural Network, Perceptron, Stock Market, Supervised Learning.*