**ABSTRACT**

Complexity and diversity of the stock market hasalways attracted the researchers since ages to find out the waysto predict the future movement. However, the volatility acrossthe globe in different stock markets makes this task moredifficult. Statistical methods and modelling are effective butcan’t address the vast range of problems encountered in theprediction of movement of the stock market. The traditionalmethods used were not able to address and give solution to thecomplex problems prevailing in the stock market. The machinelearning and artificial intelligence tools are used to solve thecomplex situations and problems of Big Data with ease. In thispaper authors propose to use six different algorithms i.e.,Generalized Linear Model, Deep Learning, Decision Tree,Random Forest, Gradient Boosted Trees and Support VectorMachine and identify model which predict near to actuals.These algorithms were applied on the BSE index data fromApril 2015 to 31st March 2020 and the model with least relativeerror is identified. Amongst all the models applied, GradientBoosted Trees is chosen to be the efficient one, as it has leastrelative error and standard deviation. Further GradientBoosted Trees is used to forecast the results.