Abstract

Prediction of stock market trends has been an area of great interest both to those who wish to profit by trading stocks in the stock market and for researchers attempting to uncover the information hidden in the stock market data. Applications of data mining techniques for stock market prediction, is an area of research which has been receiving a lot of attention recently. This work presents the design and performance evaluation of a hybrid decision tree- rough set based system for predicting the next days’ trend in the Bombay Stock Exchange (BSE-SENSEX). Technical indicators are used in the present study to extract features from the historical SENSEX data. C4.5 decision tree is then used to select the relevant features and a rough set based system is then used to induce rules from the extracted features. Performance of the hybrid rough set based system is compared to that of an artificial neural network based trend prediction system and a naive bayes based trend predictor. It is observed from the results
that the proposed system outperforms both the neural network based system and the naive bayes based trend prediction system.

Reference

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Index Terms

Computer Science  Algorithms

Key words

Stock market  Rough set
decision tree
artificial neural networks
Technical indicators
Rules