

(54) Title of the invention : A TECHNIQUE TO STOCK MARKET PREDICTION USING FUZZY CLUSTERING AND ARTIFICIAL NEURAL NETWORKS

(51) International classification	:G06K9/6218; G06N3/0436	(71)Name of Applicant : 1)DR. R. SUGUMAR Address of Applicant :DEPARTMENT OF CSE, VELAMMAL INSTITUTE OF TECHNOLOGY CHENNAI - KOLKATTA HIGHWAY,PANCHETTI - 601204, TIRUVALLUR DIST sugu16@gmail.com Tamil Nadu India (72)Name of Inventor : 1)DR. R. SUGUMAR
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

Stock market prediction is essential and of great interest because successful prediction of stock prices may promise smart benefits. These tasks are highly complicated and very difficult. Many researchers have made valiant attempts in data mining to devise an efficient system for stock market movement analysis. In this paper, we have developed an efficient approach to stock market prediction by employing Fuzzy C-means clustering and Artificial Neural Network. This research has been encouraged by the need of predicting the stock market to facilitate the investors about buy and hold strategy and to make profit. Firstly, the original stock market data converted into interpreted historical (financial) data i.e. via technical indicators. Based on these technical indicators, datasets that are required for analysis are created. Subsequently, Fuzzy-clustering technique is used to generate different training subsets. Subsequently, based on different training subsets, different ANN models are trained to formulate different base models. Finally, a meta-learner, fuzzy system module, is employed to predicting the stock price. The results for the stock market prediction is validated through evaluation metrics namely, Mean Absolute Deviation, Mean square error, Root mean square error, Mean Absolute Percentage Error used to estimate the forecasting accuracy in the stock market. The Comparative analysis is carried out Single Neural Network (NN) and Existing technique neural. The obtained results depicts that the proposed approach produces better results than the other techniques in terms of accuracy.

No. of Pages : 11 No. of Claims : 3