

Design and Development of an Algorithm to Predict Fluctuations of Currency Rates

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Abstract : Dealing with businesses with the foreign market always took a special place in a country's economy. Political and social factors came into play making currency rate changes fluctuate rapidly. Currency rate prediction has become an important factor for larger international businesses since large amounts of money exchanged between countries. This research focuses on comparing the accuracy of mainly three models; Autoregressive Integrated Moving Average (ARIMA), Artificial Neural Networks(ANN) and Support Vector Machines(SVM). series of data import, export, USD currency exchange rate respect to LKR has been selected for training using above mentioned algorithms. After training the data set and comparing each algorithm, it was able to see that prediction in SVM performed better than other models. It was improved more by combining SVM and SVR models together.

Keywords : ARIMA, ANN, FFNN, RMSE, SVM, SVR

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