1067-60-2015   **Vindya Kumari Pathirana*** (`vkumari@mail.usf.edu`), University Of South Florida, Department of Mathematics, 4202 E. Fowler Avenue, Tampa, FL 33620, and **Kandethody M. Ramachandran**. *Cluster K and probabilistic-Nearest-Neighbor Predictions in Foreign Exchange Markets.*

Foreign exchange rate forecasting through non-linear dynamical systems is becoming more and more relevant due to the nature of the data. Nearest Neighbor Algorithms which are among the most popular non-linear pattern recognition methods outperform the available linear forecasting methods when consider the high frequency foreign exchange data. In this work, we adapt cluster K-nearest neighbor, and probabilistic nearest neighbor algorithms for foreign exchange rate data. We compare the performances of these methods with the traditional methods, such as K-Nearest neighbor, transforming their forecasts in to a technical trading rule. (Received September 22, 2010)