Sravan Kumar Borra

Lab-10

1. Rahman, M., Islam, A. S., Nadvi, S. Y. M., & Rahman, R. M. (2013, May). Comparative study of ANFIS and ARIMA model for weather forecasting in Dhaka. In *Informatics, Electronics & Vision (ICIEV), 2013 International Conference on* (pp. 1-6). IEEE.

2.

Competitor Article	My Algorithm
In competitor article they performed ARIMA and ANFIS statistical methods.	We are using SVM and ANN. We out performed them as these statistical models gives better results.
They predicted only Maximum and minimum temperature.	We are predicting Max and Min temperature, wind speed on a particular day, dew point at a particular time.
Tools used : SPSS Software	Tools: Zeppelin We again outperformed in the selection of tools as Zeppelin if far more efficient than SPSS.
MAE: ARIMA: 4.1040 ANFIS: 1.2008	Pearson Correlation: For temperature and dew point- more than 70%
For excluding null values their code is lengthy and not accurate. It consumes more time.	In our article using the Lab-9 exercise, it took almost less than 10 lines of code to exclude null values as we are using spark.
Their data has more outliers.	Our data has less out liers as we excluded the null values before performing the statistical analysis.
SSE: ARIMA: 0.2133 ANFIS: 2.0151	Regression value for temperature and humidity grouped by pressure. -7.500000 Intercept- 123.500000
RMSE: ANFIS: 5.0808 ARIMA: 1.6594	Mean value : 246.5 On an average we got a mean value of 246.5 for all of our data.
R^2: ANFIS: -1.0151 ARIMA: 0.7867	We still do not have the R^2 value for our data as we did not performed SVM on our data. The work is still going on.
These people have not performed correlation on their data. So they don't know the relation between their data variables.	We performed correlation on our data as we practiced in Lab-9. We have a 70% relation between temperature and dew point. With this

	result we can predict the temperature based on dew point variable.