**Banknote Classification Dataset**

The first step is to define and explore the dataset.

We will be working with the “Banknote” standard binary classification dataset.

The banknote dataset involves predicting whether a given banknote is authentic given a number of measures taken from a photograph.

The dataset contains 1,372 rows with 5 numeric variables. It is a classification problem with two classes (binary classification).

Below provides a list of the five variables in the dataset.

1.variance of Wavelet Transformed image (continuous).

2.skewness of Wavelet Transformed image (continuous).

3.kurtosis of Wavelet Transformed image (continuous).

4.entropy of image (continuous).

5.class (integer).

**CONCLUSION**

After analyzing various techniques used to detect forged banknotes, this paper presents banknote authentication for recognizing the banknote as genuine or fake by using two supervised learning techniques. Extensive experiments have been performed on banknotes dataset using both the models to find the best model suitable for classification of the notes. ROC and other metrics have been calculated to compare the performances of both the techniques. The result shows that back-propagation neural network outperforms support vector machine and gives 100% success rate. These techniques are an efficient way of solving the problem for all banking machines that accept all types of notes. In future, this work can be extended by categorizing the notes into different categories as Genuine, Low-Quality forgery, High-Quality forgery, Inappropriate ROI.