Chapter 6

RESULTS

The screenshots of the Naive Bayes Classifier and the accuracy results of the designed system are outlined below.

6.1 Screenshots

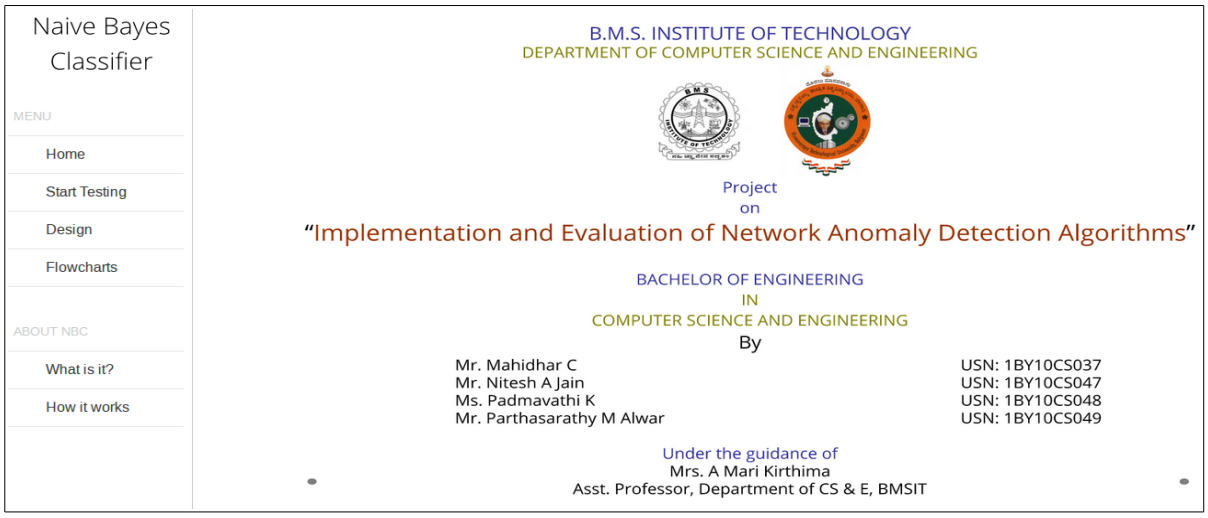

Figure 6.1 Home Page

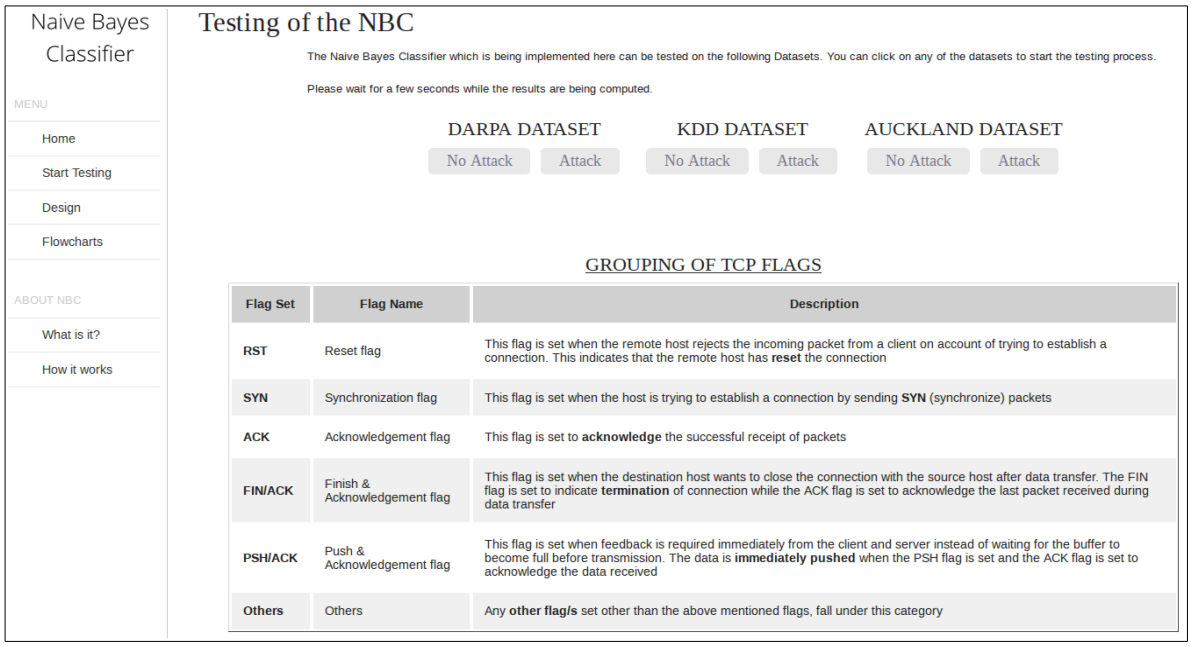

Figure 6.2 Testing Page

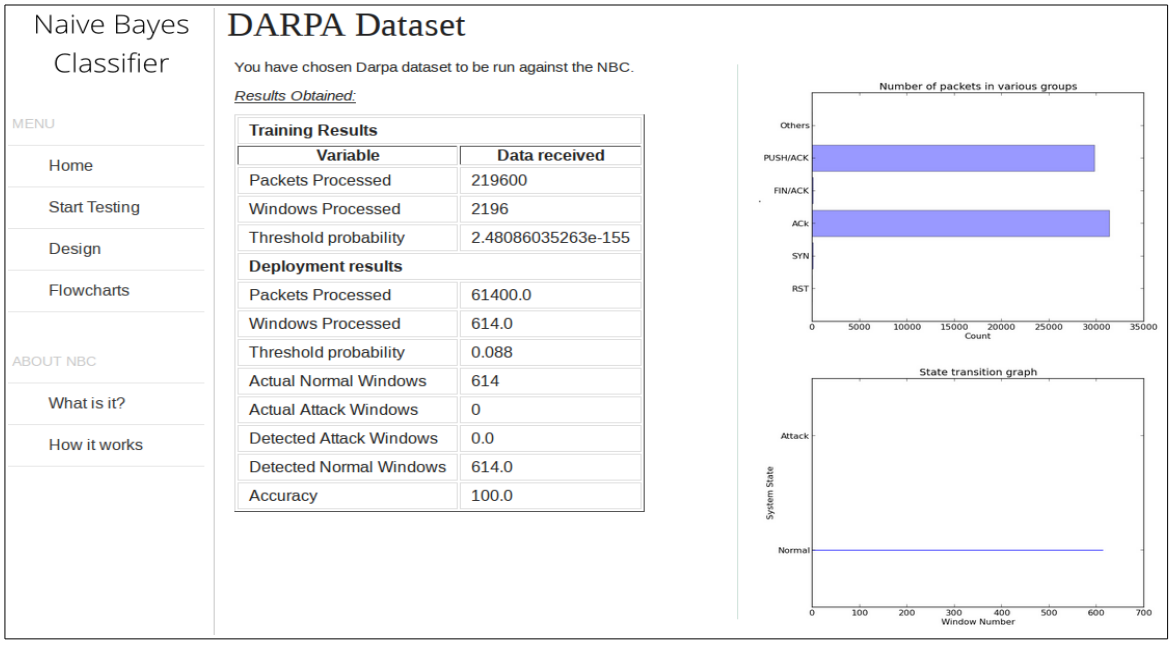

Figure 6.3 DARPA No Attack Results

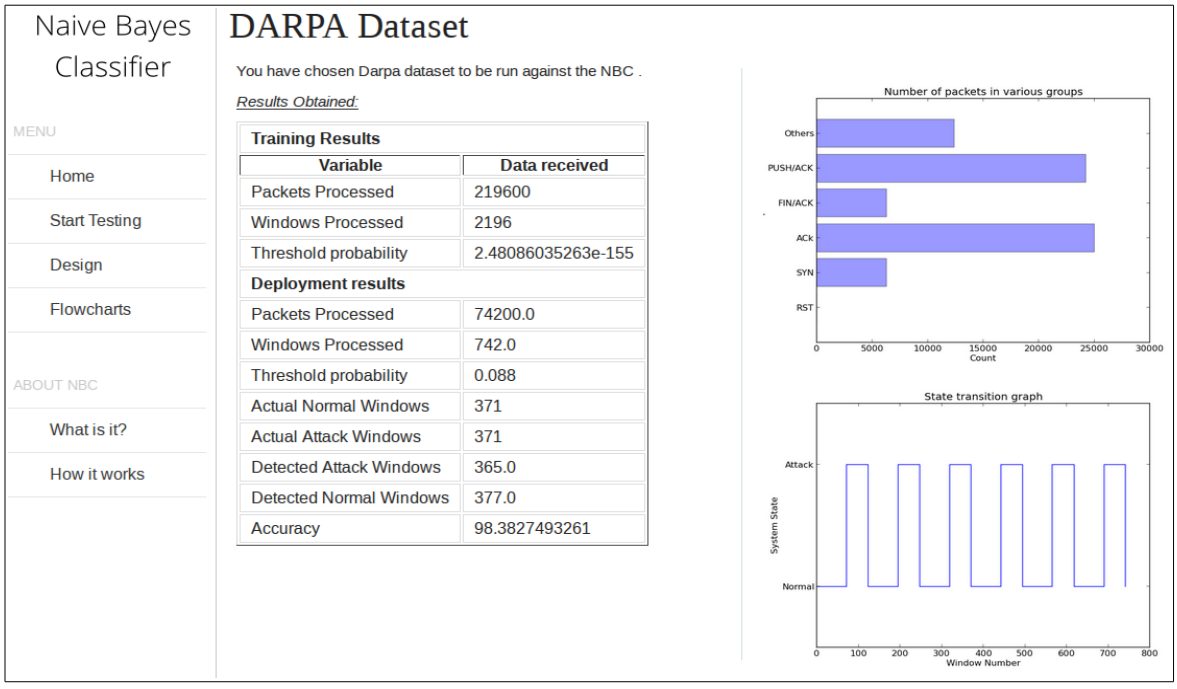

Figure 6.4 DARPA Attack Results

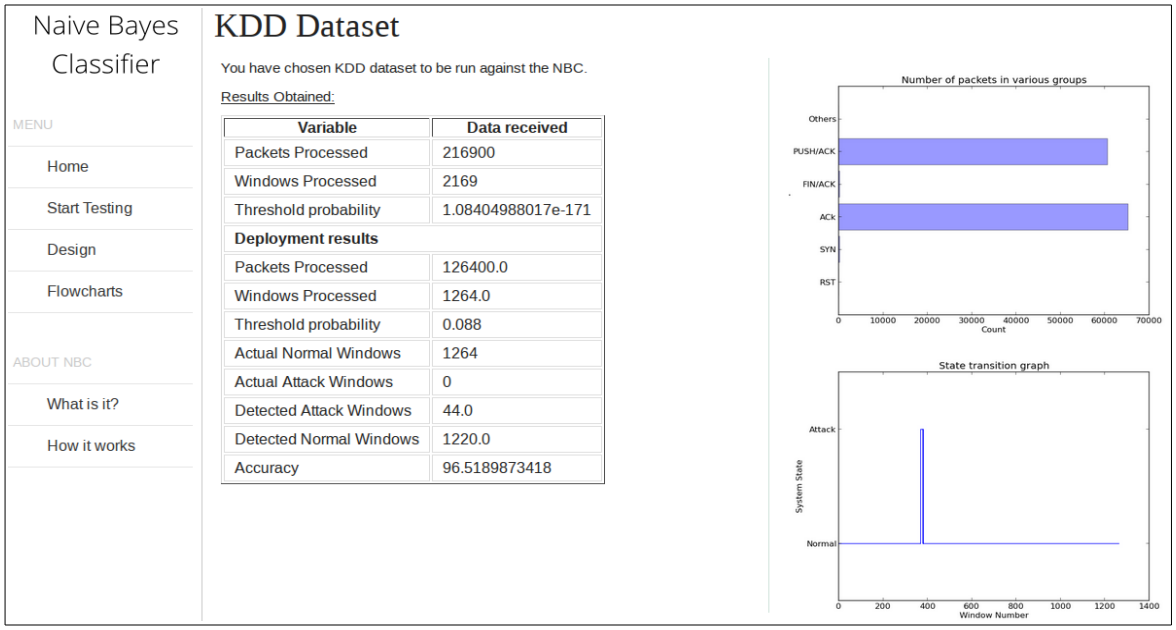

Figure 6.5 KDD No Attack Results

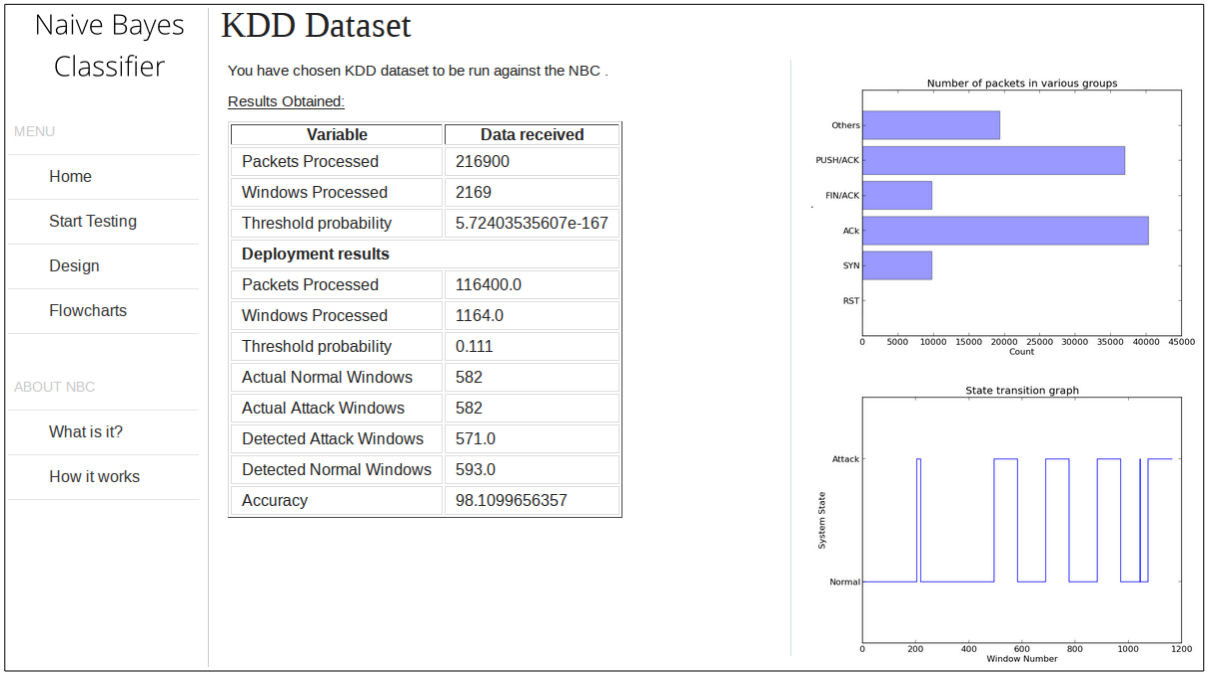

Figure 6.6 KDD Attack Results

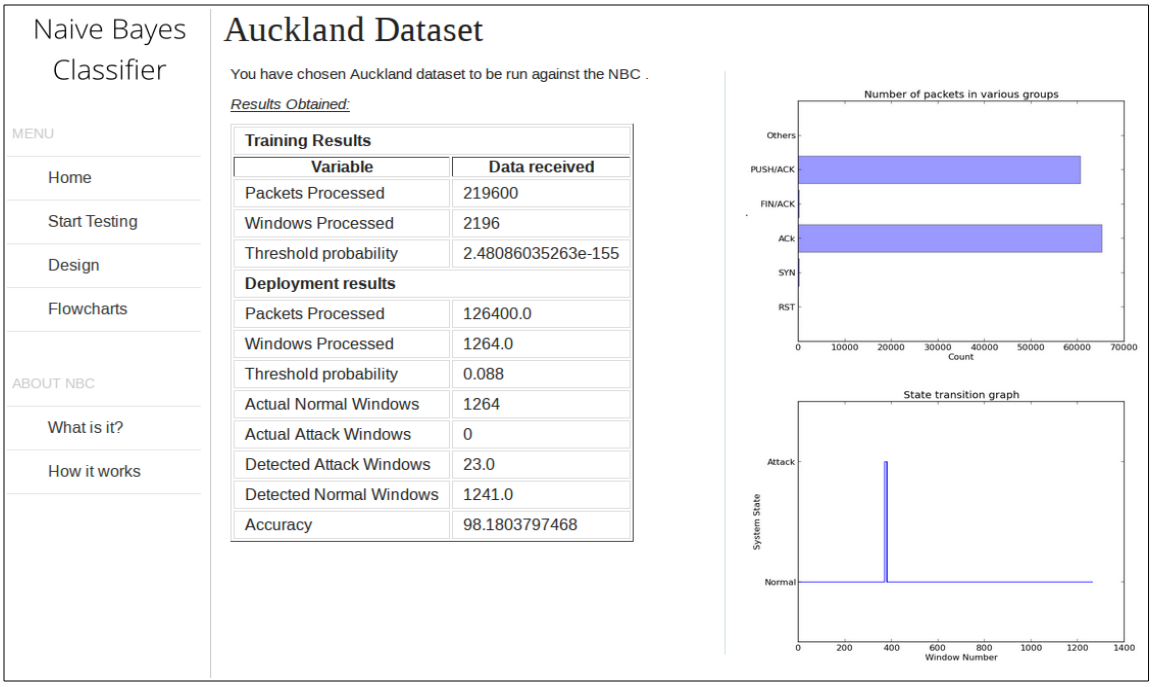

Figure 6.7 Auckland No Attack Results

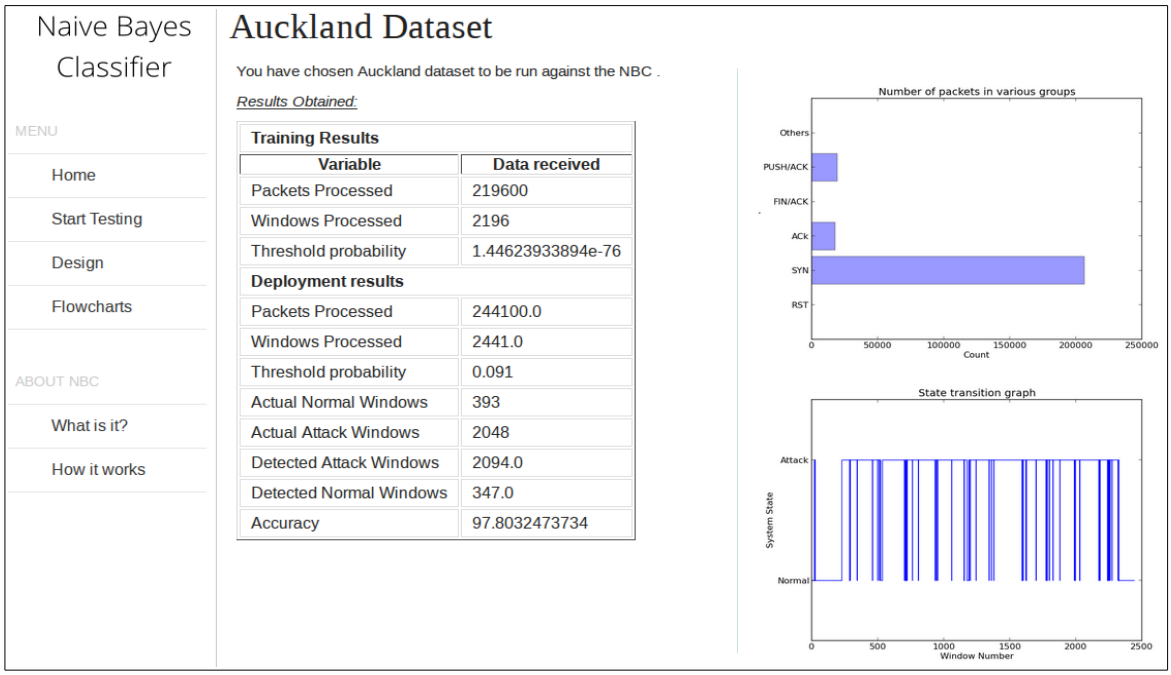

Figure 6.8 Auckland Attack Results

6.2 Results Obtained

The Naive Bayes classifier was tested against the DARPA, KDD and Auckland -II datasets. The formula to calculate the accuracy is as follows

$$Accuracy = \frac{TP + TN}{P + N}$$

where,

TP - True Positives

TN - True Negatives

P - Number of Attack Windows

N - Number of Normal Windows

Each dataset had two types of traffic – **Clean** traffic and **Mixed** traffic. The clean traffic has no attacks whereas the mixed traffic has both clean and attack packets. Using the above formula the accuracies for each dataset are as follows:

Dataset	Accuracy
DARPA	
No Attack	100%
Attack	98.38%
KDD	
No Attack	96.52%
Attack	98.11%
Auckland	
No Attack	98.18%
Attack	97.80%

Table 6.1 Results for various datasets