**Analysis**

Like we saw in the previous step SVM is the best classifier for our given data set since it gives us an accuracy of 97.9 %.

Perceptron and Neural net are not preferred ones for the given data set since in their case while fitting the model over training data set itself we get an error and thus they end up giving the worst performance. Moreover for higher hidden layers the neural net takes lot of time to get trained and thus converge.

The authors result are as shown as below:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Algorithm | Bayes Knowledge Classifier | k-NN Knowledge Classifier | | | Proposed IKC | | |
| EU | MA | MI | EU | MA | MI |
| Average Number of misclassified observations | 38 | 26.2 | 21.7 | 30.5 | 3 | 3 | 5 |
| Percentages of average error rates | 26.2 | 18.1 | 15 | 21 | 2.1 | 2.1 | 3.5 |
| Classification Accuracy | 73.8 | 81.9 | 85 | 79 | 97.9 | 97.9 | 96.5 |

The Naïve Bayes and SVM classifier achieved closer results to the author’s result.