

## ABSTRACT

Nearest Neighbour is a classification method in data mining that have been known to have an acceptable performance in a clean datasets, but doesn't works very well when implemented in noisy domain. Nevertheless NN can be upgraded to have a better performance in noisy domains, this is known as k-NN method, this is done with the introduction of the k value that helps in the voting process.

NN can be extended to a method called Nearest Neighbour With Generalised Exemplar (NNGE) that is basically a NN with the incorporation of hyperrectangle concept in the algorithm. Just like NN, NNGE works well with a clean dataset, but performs poorly in a set with noisy domain, this is due that NNGE doesn't compromise conflict in the rectangle forming process.

This paper deals with the research of the incorporation of the k-NN into NNGE, later known as the k-NNGE. The outcome of the research shows that the k-NNGE indeed have better accuracy in noisy domain than NNGE, but then compared with the increase in accuracy from NN to k-NN in noisy domain, the increase in accuracy on NNGE to k-NNGE is not as good as the increase in accuracy on NN to k-NN.

**Keywords** : noise domain, NNGE, k-NNGE