## ABSTRACT

High volume of vehicle these day give bad impact to our daily live. High traffic jam and issue of environment cannot be avoided that rise along with the rise of vehicle volume, especially in rural area. In order to help better control for this vehicle, a good statistic regarding vehicle growth is needed, especially one that can capture any rise of vehicle volume automatically.

In this final assignment, 4 wheel transportation or vehicle will be devided into 3 group such us, Sedan, Mini Bus, and Mobil Besar. In order to distinguish these 3 group well, a specific pattern for these 3 group is needed. Hybrid method that will be use to extract this patter is done by combining size pattern and color for every vehicle, then the resulted process is trained and tested using ANN Radial basis function algorithm.

The resulted classification of vehicle are gained after being performed through several preprocessing steps until it left with the object of vehicle itself. After that a lookup for JST RBF parameter value are performed in order to give better result with maximum value. Spread value of 0,4 along with maximum centered are able to give an acceptable result. Thus the experiment shows an acceptable accuracy for about 77,52%



Keywords: vehicle classification, hybrid feature extraction, JST RBF