

## ABSTRACT

Outlier detection is one of the important tasks in data mining, aims to find the data that has characteristics different from most other data. In large datasets, outlier detection is considered to be a very difficult problem when compared to a fairly small dataset. Most outlier detection methods are often not properly used in the real world because the data in the real world usually have a scattered distribution. Scattered data structures are not explicitly present normal behavior of the data and its no label indicating the data may be regarded as an outlier.

In outlier detection with LDOF method, data searching that deviates from its class can be found. LDOF method is based on the distance approach, by calculating LDOF that represents the degree of the data and compares with the value of Lower Bound LDOF, the limit values used to determine whether the data included in the outlier or not, and then sorted the biggest to the smallest value of LDOF where data with the biggest value of LDOF are *outlier*. The testing is done with some scenarios to know the system's accuracy, error rate, and its FPR. LDOF can detect outliers with better accuracy on data that has different distribution.

Keywords : *Outlier, LDOF, outlier detection, distance based approach*