## **Abstract**

Data mining is interesting patterns and trend finding process in large database. Outlier defined as a data point in database where is different than data point from common database with fixed size. Even outlier have an abnormal behaviour, often contain important information.

The task of outlier detection is to find small groups of data objects that are exceptional when compared with rest large amount of data. Detection of such outliers is important for many applications such as fraud detection, intrusion detection, and network monitoring application. Most existing methods are designed for numeric data. They will encounter problems with real-life applications that contain categorical data.

LSA method detects outlier, with a local-search heuristic based algorithm and entropy formulation for the calculation.

**Key words**: data mining, *outlier*, deteksi *outlier*, LSA, *entropy*