

## Abstract

The growth of telecommunication technology in this time are increase progressively, but sometime company loss their money because of fraud. Fraud can be detected by inspecting an abnormal behaviour done by customer(anomly). Anomaly can be detected by making a normal data pattern. In this study case the writer will create a pattern using Call Detail Record (CDR) or can be called as a signature.

Signature will be considerable as a parameter for anomaly detection. Anomaly will be detected if the pattern of a new data different from signature. In this Final Project *signature* is build using Bayesian Network. The writer use it because it can find the dependency of element of *signature*. It proved that Bayesian Network can made *signature* pattern which represent customer behaviour and can be use to detected an anomaly.

**Keywords:** *fraud , behaviour, anomaly, CDR , Bayesian Network.*