

## Abstract

*Intrusion detection system (IDS) is a system that can detect any intrusion or attack on a network or systems. One type of IDS is Anomaly detection, which categorize a network traffic data as an intrusion only if they have a different characteristic from other data.*

*In anomaly detection, there is an approach which is called as Hidden Markov Model (HMM). HMM is a model built by markov which has parameters as a matriks  $\lambda (A, B, \pi)$ .  $P(O|\lambda)$  can be calculated from that parameters and each class so that we can specify the class of the network traffic data. Class is determined based on the max value of  $P(O|\lambda)$ .*

*Testing was carried out with several scenarios to determine the accuracy of the system seen from the detection rate and false positive rate. HMM can detect intrusions with fairly good accuracy based on detection rate 74(%). From false alarm value, HMM accuracy is not toobad 2,75(%).*

**Keywords:** *Intrusion Detection System, Anomaly Detection, Intrusi, Hidden Markov Model*