

Abstract

Security is an important aspect in system., in early day of new computer technology a crack and bug in computer are used by non authorized user to gain access or to do something bad and that cause a lot of loss and damage . Intrusion Detection System is a system that can detect abnormal pattern and data in host or computer network.This research will examine supervised anomaly detection intrusion detection system using modified backpropagation. to detect normal and anomaly pattern.KDD99 intrusion detection system dataset is used for this research to examine of modified backpropagation. The main problem of backpropagation is that backpropagation take a long time to convergate. Because it takes a long time to convergate this research propose modified backpropagation using conjugate gradient fletcher reeves method in order to gain convergate in small iteration or epoch. Using modified backpropagation with conjugate gradient flethcer reeves we can get recall result from normal class 73,35% , R2L 95,08% , DOS 97,75% , Probe 73,49% and U2R 13,71% and then overall acuration 81,81%. The best recall result comes from DOS and R2L better than backpropagation without using conjugate gradient flethcer reeves with 501 epoch the backpropagation only gave 39,4% for accuration result.

Keywords : *Backpropagation, Intrusion Detection System, Anomaly ,jaringan saraf tiruan, Conjugate Gradient Flethcer Reeves*