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CERTIFICATE

This is to certify that **Mr. Vijay Kumar (17/ME/CTA/2K9, 8556)** has carried out the major project titled “**An Efficient Intrusion Detection Approach**” as a partial requirement for the award of Master of Engineering degree in Computer Technology and Application by Delhi University.

The major project is a bonafide piece of work carried out and completed under my supervision and guidance during the academic session **2009-2011**.

The matter contained in this report has not been submitted elsewhere for the award of any other degree.

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ABSTRACT

Network security has become a critical issue due to increase of traffic on the internet. Traffic on the internet has also increased the attack types. Intrusion detection has become one of the major tasks. It faces a number of challenges; an intrusion detection system must reliably detect malicious activities in a network and must perform efficiently to cope with the large amount of network traffic. In this thesis we are trying to analyze various techniques for intrusion detection on the bases of efficiency, accuracy and robustness.

It has been seen that various anomaly based approaches face the problem of a large number of false alarms which may cause the network administrator to ignore them completely. We have implemented two of the latest hybrid approaches Layered approach using conditional random fields and Fuzzy clustering with artificial neural networks (FCANN). We observed that FCANN provide better results.

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