Department of Electrical and Computer Engineering
North South University

Senior Design Project

Intrusion Detection System in a Cloud Network Using K Nearest Neighbour Algorithm

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Declaration

This is to declare that no part of this report or the project has been previously submitted elsewhere for the fulfillment of any other degree or program. Proper acknowledgement has been provided for any material that has been taken from previously published sources in the bibliography section of this report.

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Approval

The Senior Design Project entitled "**Intrusion Detection System in a Cloud Network Using K Nearest Neighbour Algorithm**" by Hasibul Alam Ratul (ID# 1520362042), Badiuzzaman Pranto (ID#1512236042), Ishrat Jahan Diya (ID#151068842), and Md. Mahidur Rahman (ID#1510494042) has been accepted as satisfactory and approved for partial fulfillment of the requirement of BS in CSE degree program on Spring, 2019.

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Abstract

In this project, we are going to develop an **Intrusion Detection System in a Cloud Network Using K Nearest Neighbour Algorithm** which can detect a few number of intrusions and notify the admin as well.

An IDS is capable of monitoring all or parts of the dynamic behavior and the state of a computer system, based on how it is configured. Besides such activities as dynamically inspect network packets targeted at this specific host, an IDS might detect which program accesses what resources and discover that, for example, a word-processor has suddenly and inexplicably started modifying the system password database. Similarly a HIDS might look at the state of a system, its stored information, whether in RAM, in the file system, log files or elsewhere; and check that the contents of these appear as expected, e.g. have not been changed by intruders.

One can think of an IDS as an agent that monitors whether anything or anyone, whether internal or external, has circumvented the system's security policy.