A Project Report

on

***ANOMALY DEVICE FINGERPRINTING***

*Submitted for the partial fulfillment of the requirement*

*for the award of the Degree of*

**BACHELOR OF TECHNOLOGY**

In

**COMPUTER SCIENCE & ENGINEERING**

by

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Under the Supervision of Under the Supervision of

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**(State Private University through State Legislature Act No 10 of 2013 of Uttarakhand and approved by UGC)**

**Mussoorie Diversion Road, Dehradun, Uttrakhand-248009, India**

2019-2020



**DECLARATION**

This is to certify that the Project entitled **“****Anomaly Device Fingerprinting”** in partial fulfillment of the requirement for the award of the **Degree of Bachelor of Technology in Computer Science & Engineering**, submitted to **DIT University, Dehradun, Uttarakhand, India,** is an authentic record of my own work carried out during the period January 2020 to May 2020, under the supervision of  **Mr. Saket Arun Jadhav**.

The matter embodied in this Project has not been submitted for the award of any other degree or diploma to any University/Institution.

**Ritam Ghosh**

**160111046**

***Date: 12/04/2020***

***Place: Dehradun***



**CERTIFICATE**

This is to certify that the Project entitled **“Anomaly Device Fingerprinting”** in partial fulfillment of the requirement for the award of the **Degree of Bachelor of Technology** in **Computer Science & Engineering**, submitted to **DIT University, Dehradun, Uttarakhand, India,** is an authentic record of bonafide research work carried out by **Mr. Ritam Ghosh, 160111046** under my supervision.

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**ABBREVIATIONS**

RAM RANDOM ACCESS MEMORY [1]

SSD SOLID STATE DRIVE [4]

HDD HARD DISK [4]

CRO CONVERSION RATE OPTIMIZATION [4]

**ACKNOWLEDGEMENT**

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**Ritam Ghosh**

**ABSTRACT**

This project automates the various manual procedures that occur during device fingerprinting which is commonly used for tracking, monitoring & detection. In this device fingerprinting is used but in the specific context of anomaly, providing signatures & pattern analysis of incoming & outgoing processes of a network of an organisation to maintain security standards. Device Fingerprinting is a new way of differentiating between a valuable client, employee and professional fraudster online. Online identity verification and authentication is a significant challenge and concern to all business owners to safeguards their organisation interest.

So, the topic “Anomaly Device Fingerprinting” is chosen to develop an automated system which can validates internal security from inside and outside world. It will not only act as a self-propelled firewall from an organisation but as a monitoring, tracking and detection system for an organisation having full control of it. This automated system will reduce the risk as having own monitoring system than trusting other 3rd party firewall. Here an automated programmed & algorithm will be developed as per datasets generated after pre-processing & transformation of raw data which will help in having an automated device fingerprinting system for network analysis.

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