# MAJOR PROJECT REPORT

On

# MODELLING AND PREDICTING CYBER HACKING BREACHES

*Submitted in partial fulfillment of the requirements for the award of degree of*

**BACHELOR OF TECHNOLOGY**

In

**COMPUTER SCIENCE AND ENGINEERING**

By


| | | |
|---|---|---|
| **Ms. G. VARSHA REDDY** | **:** | **17J41A0515** |
| **Ms. A. PRIYA YADAV** | **:** | **17J41A0543** |
| **Mr. T. RANJITH** | **:** | **17J41A0555** |
| **Mr. Y. SAKETH** | **:** | **17J41A0558** |


Under the guidance of

**Mr. M. RAKESH REDDY**

**Assistant Professor**


**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

## MALLA REDDY ENGINEERING COLLEGE

(An UGC Autonomous Institution, Approved by AICTE and Affiliated to JNTUH Hyderabad, Recognized under section 2(f) &12(B) of UGC Act 1956, Accredited by NAAC with 'A' Grade (II Cycle) and NBA Maisammaguda, Dhulapally (Post Via Kompally), Secunderabad-500 100

Website: www.mrec.ac.in

E-mail: principal@mrec.ac.in


2017-2021

# MALLA REDDY ENGINEERING COLLEGE

**(An Autonomous Institution)**

**Maisammaguda, Dhulapally (Post Via Kompally), Secunderabad – 500 100 Telangana State**

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

## CERTIFICATE

This is to certify that the project work titled " **MODELLING AND PREDICTING CYBER HACKING BREACHES** " is a bonafide work done by **Ms. G. Varsha Reddy (17J41A0515), Ms. A. Priya Yadav (17J41A0543), Mr. T. Ranjith (17J41A0555), Mr. Y. Saketh (17J41A0558)** in the partial fulfillment of **Bachelor of Technology** in **Computer Science and Engineering** of the **Malla Reddy Engineering College (Autonomous)** affiliated to JNTUH, Hyderabad and that this has not submitted for the award of any other degree of any Institution/University.

**Internal Guide**
Mr. M. Rakesh Reddy
Assistant Professor

**Head of the Department**
Dr. N. Lakshmipathi Anantha
Professor

**External Examiner**

# DECLARATION

We hereby declare that this project work dissertation titled " **MODELLING AND PREDICTING CYBER HACKING BREACHES "** is original and bonafide work of our own in the partial fulfillment of the requirements for the award of the degree of **Bachelor of Technology** in **Computer Science and Engineering** at **Malla Reddy Engineering College (Autonomous)**, affiliated to **JNTUH, Hyderabad** under the guidance of **Mr. M. Rakesh Reddy**, **Assistant Professor,** Department of CSE and has not been copied from any earlier reports.

| ROLL NUMBER | NAME | SIGNATURE |
|---|---|---|
| 17J41A0515 | Ms. G. Varsha Reddy | |
| 17J41A0543 | Mr. A. Priya Yadav | |
| 17J41A0555 | Mr. T. Ranjith | |
| 17J41A0558 | Mr. Y. Saketh | |

# ACKNOWLEDGEMENT

We are extremely thankful to our beloved Chairman and Founder of Malla Reddy Group of Institutions **Sri. Ch. Malla Reddy,** for providing necessary infrastructure facilities throughout the project work.

We express our sincere thanks to **Director Dr. A. Ramaswamy Reddy**, who took keen interest and encouraged us in every effort during the project work.

We owe our gratitude to **Dr. A. Ravindra**, **Principal**, for his encouragement to accomplish the project work successfully.

We express our heartfelt thanks to **Dr. N. Lakshmipathi Anantha**, **Professor and Head**, Department of Computer Science and Engineering, for his kind attention and valuable guidance throughout the project work.

We are thankful to our Project Coordinator **Dr. Ch GVN Prasad, Professor** of CSE for his valuable suggestions and guidance throughout the project work.

We are extremely thankful to our Project Guide **Mr. M. Rakesh Reddy Assistant Professor** for his/her constant guidance and support to complete the project work.

We also thank all the teaching and non-teaching staff of Computer Science and Engineering Department for their cooperation during the project work.

**Ms. G. VARSHA REDDY : 17J41A0515**
**Ms. A. PRIYA YADAV : 17J41A0543**
**Mr. T. RANJITH : 17J41A0555**
**Mr. Y. SAKETH : 17J51A0558**

# Abstract

Modeling and predicting cyber hacking breaches is an important, yet challenging, problem. In this we initiate the study of modeling and predicting cyber hacking breaches.in the present study we proposed a stochastic process model (ARIMA- auto regressive integrated moving average) to predict both hacking breach incident inter arrival times and breach sizes. Here we will use both qualitative and quantitative trend analysis on the data set.

**Keywords:**

ARIMA, Cyber Hacks, Security Breaches.

# LIST OF FIGURES

# INDEX