

A  
Major Project Report  
on  
**DETECTION OF MALICIOUS SOCIAL BOTS USING LEARNING  
AUTOMATA WITH URL FEATURES IN TWITTER NETWORK**

*Submitted*  
*to*  
**Jawaharlal Nehru Technological University, Hyderabad**  
*in partial fulfillment of the requirement for the award of Degree of*  
**Bachelor of Technology**  
*in*  
**Computer Science & Engineering**  
*by*

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**2022-2023**

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## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



### CERTIFICATE

This is to certify that the project entitled “**DETECTION OF MALICIOUS SOCIAL BOTS USING LEARNING AUTOMATA WITH URL FEATURES IN TWITTER NETWORK**” is submitted by **D.Nikitha (196Y1A0527)**, **J.Nikhitha Sri (196Y1A0546)**, **B.Sindhuja (196Y1A0515)** and **P.Pranathi (186Y1A0587)** in the partial fulfillment of requirement for the award of degree of Bachelor of Technology in Computer Science and Engineering during academic year 2022-23.

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## ABSTRACT

Malicious social bots generate fake tweets and automate their social relationships either by pretending like a follower or by creating multiple fake accounts with malicious activities. Moreover, malicious social bots post shortened malicious URLs in the tweet in order to redirect the requests of online social networking participants to some malicious servers. Hence, distinguishing malicious social bots from legitimate users is one of the most important tasks in the Twitter network to detect malicious social bots, extracting URL-based features (such as URL redirection, frequency of shared URLs, and spam content in URL) consumes less amount of time in comparison with social graph-based features (which rely on the social interactions of users).

### 1. SYSTEM ANALYSIS

#### 1.1 Existing System

#### 1.2 Proposed System

##### 1.2.1 Advantages of Proposed System

### 2. SYSTEM SPECIFICATIONS

#### 2.1 Hardware Requirements

#### 2.2 Software Requirements

### 3. TECHNOLOGIES LEARNT

### 4. SYSTEM DESIGN

#### 4.1 System Architecture

#### 4.2 UML Diagrams

#### 4.3 Sequence Diagrams

#### 4.4 Class Diagrams



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### 5. DESIGN AND IMPLEMENTATION

### 6. TESTING