# ON SOCIAL MEDIA USING MACHINE LEARNING

A Project report submitted in

Partial fulfillment of the requirements

for the Degree of

**Bachelor of Engineering** 

in

**Computer Science & Engineering** 

Submitted by

Borse Sayali D.

Deore Mayuri H.

Surywanshi Maheshwari V.



#### DEPARTMENT OF COMPUTER ENGINEERING

NES's

GANGAMAI COLLEGE OF ENGINEERING NAGAON 2022-2023

# DETECTION ON CYBERBULLYING ON SOCIAL MEDIA USING MACHINE LEARNING

A Project report submitted in

Partial fulfillment of the requirements

for the Degree of

**Bachelor of Engineering** 

in

**Computer Engineering** 

Submitted by

Borse Sayali D.

Deore Mayuri H.

Surywanshi Maheshwari V.

Guided by

Prof. Y. R. Kolapkar



#### DEPARTMENT OF COMPUTER ENGINEERING

NES's

GANGAMAI COLLEGE OF ENGINEERING NAGAON 2022-2023



#### NES's

#### GANGAMAI COLLEGE OF ENGINEERING NAGAON

#### DEPARTMENT OF COMPUTER ENGINEERING

#### **CERTIFICATE**

This is to certify that the Project entitled "Detection Of Cyberbullying On Social Media Using Machine Learning" has been carried out by Borse Sayali D., Deore Mayuri H. and Surywanshi Maheshwari V. under my guidance in partial fulfillment of the degree of Bachelor of Engineering in Computer Engineering of North Maharashtra University, Jalgaon during the academic year 2022-2023. To the best of my knowledge and belief this work has not been submitted elsewhere for the award of any other degree.

Place: Nagaon Prof. Y. R. Kolapkar

**Head** Principal

Prof.G.M.Poddar Dr. V.M.Patil

**Examiner** 

#### **ACKNOWLEDGEMENT**

With immense pleasure and satisfaction, I am presenting this project report as part of the curriculum of B.E. Computer Engineering. I wish to express my sincere gratitude towards all those who have extended their support during this work.

I express my profound thanks to my guide **Prof.Y.R.Kolapkar** his continued support. **Prof.G.M.Podar** (**HOD**, **Computer Department**) for their guidance and timely review. I am also thankful to **Dr. V.M.Patil** (**Principal**, **GCOE**) for providing this opportunity. I would also like to express my thanks to all those who have directly or indirectly guided and helped me in preparation of this work.

Borse Sayali D. Deore Mayuri H. Surywanshi Maheshwari V.

## **Contents**

AB	Cr	ГD		$\alpha$	г
AD	7.7	ın	. Н	v	L

CHAPTER 1	1
INTRODUCTION	1
1.1.BACKGROUND	1
1.2 PROBLEM DEFINITION	2
1.3 PROJECT PURPOSE	2
1.4 SCOPE OF THE PROJECT	2
1.5 PROJECT FEATURES	3
1.6 MODULE DESCRIPTION	3
CHAPTER 2	4
LITERATURE SURVEY	4
2.1RELATED WORK	4
2.2 TEXT REPRESATION LEARNING	4
2.3 DATA ABSTRACTION	5
2.4 EXITING SYSTEM	5
2.2.1 GRAPHICAL USER INTERFACE (GUI)	5
CHAPTER 3	7
REQUIREMENT ANALYSIS	7
3.1 FUNCTIONAL REQUIREMENTS	7
3.2 NON-FUNCTIONAL REQUIREMENTS	7
3.2.1 ACCESSIBILITY	8
3.2.2 MAINTAINABILITY	8
3.2.3.SCALABILITY	8
3.2.4 PORTABILITY	8
3.2.5 RELAIBILITY	8
3.3 HARDWARE REQUIREMENTS	9
3.4 SOFTWARE REQUIREMENTS	9
3.5 SYSTEM REQUIREMENT SPECIFICATION DOCUMENT	9

CHAPTER 4	11
SYSTEM ANALYSIS	11
4.1 PROPOESD SYSTEM	11
4.2 SYSTEM STUDYS	11
CHAPTER 5	15
DESIGN	15
5.1 WORKFLOW	15
5.2 ARCHITECTURE DIAGRAM	16
5.3 USER MODULE	17
5.4 MACHINE LEARNING MODULE	18
5.5 E - R DIAGRAM	20
5.6 ACTIVITY DIAGRAM	22
CHAPTER 6	23
IMPLEMENTATION	23
6.1 PYTHON	23
6.2 SVM	24
6.3 JUPYTER NOTEBOOK	24
6.4 PYTHON JSON	24
6.5 KAGGLE	24
6.6 SCREENSHOTS	25
CHAPTER 7	29
SCHEDULE WORK	29
7.1 PROJECT MANAGEMENT	29
CHAPTER 8	31
CONCLUSION	31
CHAPTER 9	32
CODING	32
BIBILIOGRAPHY	41

# **Figure Index**

FIGURE 1.1 ARCHITECTURE DIAGRAM	3
FIGURE 5.1 WORKFLOW	15
FIGURE 5.2 ARCHITECTURE DIAGRAM	16
FIGURE 5.3 USER CASE DIAGRAM	17
FIGURE 5.4 MACHINE LEARNING USECASE DIAGRAM	18
FIGURE 5.5 E - R DIAGRAM	20
FIGURE 5.6 ACTIVITY DIAGRAM	22
FIGURE 6.1 LOGIN PAGE	25
FIGURE 6.2 SIGNUP PAGE	25
FIGURE 6.3 RESET PASSWORD PAGE	26
FIGURE 6.4 EXCEL SHEET	26
FIGURE 6.5 PROJECT SCREEN - 1	27
FIGURE 6.6 PROJECT SCREEN - 2	28

## **Table Index**

TABLE 4.1 HARDWARE TABLE		
TABLE 4.2 SOFTWARE TABLE	14	