

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY

“Jnana Sangama”, Belagavi-560014, Karnataka



A PROJECT REPORT ON

“Detection of Cyberbullying Using Machine Learning”

*SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
AWARD OF THE DEGREE*

**BACHELOR OF ENGINEERING  
IN  
COMPUTER SCIENCE & ENGINEERING**

Submitted By

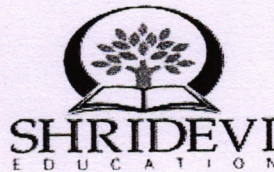
**Ayesha Saleem [1SV19CS013]  
H Bharkathulla [1SV19CS032]  
Noor Jahan [1SV19CS051]  
Rajan Kumar Patel [1SV19CS055]**

Under the guidance of

**Dr. Manjula T** B.E., M.Tech., Phd

Associate Professor, Dept. of CSE.

*Manjula T*  
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Department of Computer Science and Engineering

**SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY**

(Affiliated To Visvesvaraya Technological University)

Sira Road, Tumakuru – 572106, Karnataka.

2022-2023



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that, project report of entitled "Detection of Cyberbullying Using Machine Learning" has been successfully carried out by Ayesha Saleem [ISV19CS013], H Bharkathulla [ISV19CS032], Noor Jahan [ISV19CS051], Rajan Kumar Patel [ISV19CS055] in partial fulfillment for the award of **Bachelor of Engineering in Computer Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year **2022-23**. It is certified that all the corrections/suggestions indicated for internal assessments have been incorporated in the report. The Project report has been approved as it certifies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

Manjula.T 26/5/23

Signature of Guide

**Dr. Manjula T** B.E., M.Tech., Phd  
Associate Professor,  
Dept. of CSE,  
SIET, Tumakuru.

Basavesh D - 26/5/23

Signature of H.O.D

**Dr. Basavesh D** B.E., M.Tech., Phd  
Associate Professor & HOD  
Dept. of CSE,  
SIET, Tumakuru.

Narendra Viswanath

Signature of Principal

Narendra Viswanath  
PRINCIPAL  
SIET, TUMKUR.

**Dr. Narendra Viswanath** M.E., Ph.D., MIE, MISTE, MIWS., FIV.,  
Principal,  
SIET, Tumakuru

External Viva

Name of the Examiners

1. Dr. Basavesh D
2. Wasim Uddin

Signature with date

Basavesh D - 26/5/23  
Wasim Uddin - 26/5/23



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### DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

#### DECLARATION

We, Ayesha Saleem [ISV19CS013], H Bharkathulla [ISV19CS032], Noor Jahan [ISV19CS051], Rajan Kumar Patel [ISV19CS055], students of VIII semester B.E in Computer Science & Engineering, at Shridevi Institute of Engineering & Technology, Tumakuru, hereby declare that, the Project work-II entitled “**Detection of Cyberbullying Using Machine Learning**”, embodies the report of our Project work carried out under the guidance of **Dr. Manjula T, Associate Professor, Department of CSE, SIET, Tumakuru** as partial fulfillment of requirements for the award of the degree in **Bachelor of Engineering in Computer Science & Engineering of Visvesvaraya Technological University, Belagavi**, during the academic year **2022-23**. The Project has been approved as it satisfies the academic requirements in respect to the Project work.

Place: Tumakuru

Student Name & Signature

Date: 15/12/22

Ayesha Saleem	[ISV19CS013]	<i>Ayesha Saleem</i>
H Bharkathulla	[ISV19CS032]	<i>H Bharkathulla</i>
Noor Jahan	[ISV19CS051]	<i>Noor Jahan</i>
Rajan Kumar Patel	[ISV19CS055]	<i>Rajan Kumar Patel</i>

*Manjula T*  
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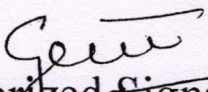
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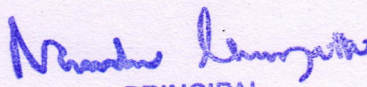
## TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Ms. AYESHA SALEEM** bearing USN 1SV19CS013 Student of **Shridevi Institute of Engineering & Technology** has successfully completed her Project Work titled "Detection Of Cyberbullying Using Machine Learning".

We wish every success in her career.

For ShriTEK Innovations

  
Authorized Signature

  
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Date: 22/05/2023

## TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. H BHARKATHULLA** bearing USN 1SV19CS032 Student of **Shridevi Institute of Engineering & Technology** has successfully completed his Project Work titled "Detection of Cyberbullying Using Machine Learning".

We wish every success in his career.

For ShriTEK Innovations

Authorized Signature



*Nandha Kumar*  
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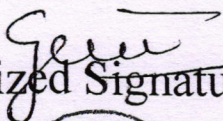
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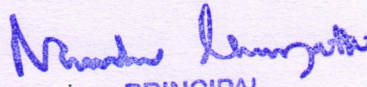
This is to certify that **Ms. NOOR JAHAN** bearing USN 1SV19CS051 Student of **Shridevi Institute of Engineering & Technology** has successfully completed her Project Work titled "Detection Of Cyberbullying Using Machine Learning".

We wish every success in her career.

For ShriTEK Innovations

  
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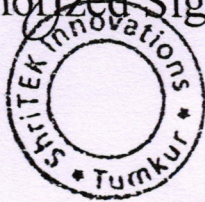
This is to certify that **Mr. RAJAN KUMAR PATEL** bearing USN 1SV19CS055 Student of **Shridevi Institute of Engineering & Technology** has successfully completed his Project Work titled "Detection of Cyberbullying Using Machine Learning".

We wish every success in his career.

For ShriTEK Innovations

*M. Srinivas Kumar*  
PRINCIPAL  
SIET, TUMKUR.

*Geet*  
Authorized Signature



## ACKNOWLEDGEMENT

This Project will be incomplete without thanking the personalities responsible for this venture, which otherwise would not have become a reality.

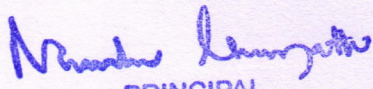
We express our profound gratitude to **Dr. Narendra Viswanath**, Principal, S.I.E.T, for his moral support towards completing our Project work.

We would like to thank Head of Department **Dr. Basavesha D**, Head, Department of CSE, SIET for providing all the support and facility.

We would like to thank my guide **Dr. Manjula T**, Associate Professor, Department of computer Science and Engineering, SIET for his help, sharing his technical expertise and timely advice.

We whole heartedly thank, **Mr. Girish L**, Assistant Professor, Project coordinator, Department of Computer Science and Engineering, for the support.

We would like to express our sincere gratitude to all teaching and non-teaching faculty of the department of CSE for guiding us of this project by giving valuable suggestion and encouragement.

  
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By,

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## ABSTRACT

Cyberbullying is the process of sending wrong messages to a person or community which causes heated debate with users over the internet. To prevent cyber victimization from the activity is challenging. Cyberbully is a misuse of technology advantage to bully a person. Cyberbullying detection is very important because the online information is too large, so it is not possible to be tracked by humans. Cyberbullying is mostly seen in social networking sites where users reply to post with bullying words to threaten or insult other users. According to the latest survey done on all over the world data day by day, cases are increasing on cyberbullying. It may affect various users over the internet and may disguise them. To solve this problem many natural language processing techniques are proposed by various authors which are time taking and not automatic. With the advancement of machine learning and artificial intelligence, models can be created, and automatic detection can be implemented. We have tried to propose a possible solution for the above problem, our project aims to detect cyberbullying in tweets using ML Classification algorithms like Naïve Bayes, KNN, Decision Tree, Random Forest, Support Vector etc. and, we will apply the NLTK (Natural language toolkit) which consist of bigram, trigram, n-gram and unigram on Naïve Bayes to check its accuracy. Finally, we will compare the results of proposed and baseline features with other machine learning algorithms. Findings of the comparison indicate the significance of the proposed features in cyberbullying detection.

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