

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELAGAVI**



**A PROJECT REPORT ON  
“CYBER BULLYING DETECTION USING  
MACHINE LEARNING ALGORITHMS”**

Submitted in partial fulfillment for the award of Degree of,

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE & ENGINEERING**

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**CERTIFICATE**

This is to certify that the project entitled **“CYBER BULLYING DETECTION USING MACHINE LEARNING ALGORITHMS”** has been successfully completed by

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the bonafide students of **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**, **ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2019–2020. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

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# ABSTRACT

With the rise of social media, people can now form relationships and communities easily regardless of location, race, ethnicity, or gender. However, the power of social media simultaneously enables harmful online behavior such as harassment and bullying. Cyber-bullying is a serious social problem, and a recently emerging type of violence, which has gained significant media and research attention making it an important topic in social network analysis. As a side effect of increasingly popular social media, cyber-bullying has emerged as a serious problem affecting children, adolescents and young adults. Cyber bullying has become a serious issue with the increasing popularity of the social media. Cyber bullying is a form of harassment using electronic means. Machine learning methods can potentially help provide better understanding of this phenomenon, but they must address several key challenges: the rapidly changing vocabulary involved in cyber-bullying, the role of social network structure, and the scale of the data. We address the problem of cyber bullying detection on twitter dataset. This proposed approach deals with text based cyber bullying detection. Text classification algorithms like naïve bayes, SVM and count vectorizer have been widely used for classifying bullying and non-bullying tweets. The scope of these algorithms and their performances are different. This project detect bullying and non-bullying posts. This project contain its own platform where people can sign in and post their thoughts. Prediction is made to check if the post contains bullying words or not. If the post contains bullying word, then each character of the detected bullying word is replaced with “\*” character and a suitable warning message will be displayed. According to the prediction a message will be displayed whether the given post is bullying or not.