

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590014**



A PROJECT REPORT ON

**“Depression Detection Model using Sentiment Analysis in
Micro-blog Social Network”**

Submitted in partial fulfilment of the requirements for the degree of

**BACHELOR OF ENGINEERING IN
COMPUTER SCIENCE AND ENGINEERING**

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CERTIFICATE

This is to certify that the project work phase-II entitled “**Depression Detection Model using Sentiment Analysis in Micro-blog Social Network**” carried out by **Abdullah Bin Mohammad Iqbal (4BP16CS001)**, **Shankaragowda B (4BP16CS041)**, **Abdul tawwab Mulla (4BP17CS001)**, **Nasheel Rahman (4BP17CS024)** in partial fulfilment of the requirements award of degree of B.E. in Computer Science and Engineering degree prescribed by the Visvesvaraya Technological University, Belagavi, during the academic year **2020- 2021**.

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EXTERNAL EXAMINATION

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DECLARATION

We, **Abdullah Bin Mohammad Iqbal (4BP16CS001)**, **Shankaragowda B (4BP16CS041)**, **Abdul Tawwab Mulla (4BP17CS001)**, **Nasheel Rahman (4BP17CS024)** students of final year B.E. in Computer Science and Engineering, Bearys Institute of Technology, hereby declare that the Project phase-II report entitled **“Depression Detection Model using Sentiment Analysis in Micro-blog Social Network”** submitted under the guidance of **Prof. Afsar Baig M** for the partial fulfilment of the requirements of the award of degree of Bachelor of Engineering in Computer Science and Engineering during the academic year 2020-2021.

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ABSTRACT

Social networks have been developed as a great point for its users to communicate with their interested friends and share their opinions, photos, and videos reflecting their moods, feelings, and sentiments. This creates an opportunity to analyze social network data for user's feelings and sentiments to investigate their moods and attitudes when they are communicating via these online tools, social networks contain a tremendous amount of node and linkage data, providing unprecedented opportunities for a wide variety of fields. As the world's fourth largest disease, depression has become one of the most significant research subjects. datasets originating from social networks are valuable to many fields such as sociology and psychology. But the supports from technical perspective are far from enough, and specific approaches are urgently in need. This paper applies data mining to psychology area for detecting depressed users in social network services, although depression is one of the most common mental disorders, the depressed individuals may not be aware of their symptoms at all so that they sometimes miss the appropriate time for treatment. To prevent this problem, many researchers investigated social media to figure out depressed individuals by analyzing the differences in language use. While they have recently achieved reasonable performance in detecting depression, especially using deep learning methods, such methods still do not provide a clear way to explain why certain individuals have been detected as depressed. We investigate different aspects of posts by depressed users through four feature networks built upon psychological studies, which will help researchers to investigate social media posts to find useful evidence for depressive symptoms, 2 kinds of classifiers are used to verify the model, whose precisions are all around 70%. although diagnosis of depression using social networks data has picked an established position globally, there are several dimensions that are yet to be detected. In this study, we aim to perform depression analysis on Instagram data collected from an online public source. To investigate the effect of depression detection, we propose machine learning technique as an efficient and scalable method.

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