A

PROJECT REPORT

ON

"RUMOR DETECTION ON TWITTER DATASET"

SUBMITTED TO

SHIVAJI UNIVERSITY, KOLHAPUR

IN THE PARTIAL FULFILLMENT OF REQUIREMENT FOR THE AWARD OF DEGREE IN BACHELOR OF TECHNOLOGY IN COMPUTER SCIENCE AND ENGINEERING

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Prof. S. S. Sangewar

DKTE
Promoting Excellence in
Teaching, Learning & Research

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERINGDKTE SOCIETY'S TEXTILE AND ENGINEERING INSTITUTE, ICHALKARANJI

2022-2023

D.K.T.E. SOCIETY'S TEXTILE AND ENGINEERING INSTITUTE, ICHALKARANJI
(AN AUTONOMOUS INSTITUTE)

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Promoting Excellence in
Teaching, Learning & Research

CERTIFICATE

This is to certify that, project work entitled

"RUMOR DETECTION ON TWITTER DATASET"

is a Bonafide record of project work carried out in this college by

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is in the partial fulfillment of the award of degree Bachelor in Technology in Computer Science & Engineering prescribed by Shivaji University, Kolhapur for the academic year 2022-2023.

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DECLARATION

We hereby declare that, the project work report entitled "**RUMOR DETECTION ON TWITTER DATASET**" which is being submitted to D.K.T.E. Society's Textile and Engineering Institute Ichalkaranji, affiliated to Shivaji University, Kolhapur is in partial fulfillment of degree B.Tech.(CSE). It is a Bonafide report of the work carried out by us. The material contained in this report has not been submitted to any university or institution for the award of any degree. Further, we declare that we have not violated any of the provisions under the Copyright and Piracy / Cyber / IPR Act Amended from time to time.

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ACKNOWLEDGEMENT

With great pleasure we wish to express our deep sense of gratitude to **Prof. S. S. Sangewar** for his valuable guidance, support and encouragement in completion of this project report. Also, we would like to take the opportunity to thank our head of department **Dr. V. Kodavade** for his co-operation in preparing this project report.

We feel gratified to record our cordial thanks to other staff members of the Computer Science and Engineering Department for their support, help and assistance which they extended as and when required.

Thank you,

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ABSTRACT

Emergence in the social network leads to the extensive and faster diffusion of news than conventional news channels. Verification of data is challenging due to massive information on a social network. Unverified information can be a rumor or fake news that causes damage to an individuals and organizations, revealing the harmful impact on humanity. Therefore, it is vital to combat rumor diffusion to minimize the adverse effects on society. Despite vigorous efforts to deal with this issue, researchers mainly focused on temporal dynamics of posts and other features like a user, network, content-based, which demonstrate a moderate accuracy. The time series features are associated with an event that suppresses the other quality features related to each post. There is a scope for improvement in the accuracy, so this paper focuses on post-wise features such as user-based, content-based and lexical-based features along with post sequences. We proposed a framework that uses various essential features and combines two deep learning models. Word embedding is utilized with bidirectional long short-term memory (BiLSTM) and combined with post-wise features using a multilayer perceptron (MLP), which improves accuracy. The experiments on the real-world dataset of Twitter demonstrate a notable improvement in accuracy compared to state-of-the-art approaches.

Keywords: Deep learning . Lexical features . Rumor . Rumor detection . Social network

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