



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

# IJRSET

International Journal of Innovative Research in  
**SCIENCE | ENGINEERING | TECHNOLOGY**



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 13, Issue 4, April 2024

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

Impact Factor: 8.423

 9940 572 462

 6381 907 438

 [ijirset@gmail.com](mailto:ijirset@gmail.com)

 [www.ijirset.com](http://www.ijirset.com)



# Prediction of Suicide Tensivity Activities on Social Media

Mohan Krishna Achari, Dr. D.J. Samatha Naidu

P.G. Student, Department of Master of Computer Applications, Annamacharya PG College of Computer Studies,  
Rajampet, Andhra Pradesh, India

Principal, Department of Master of Computer Applications, Annamacharya PG College of Computer Studies,  
Rajampet, Andhra Pradesh, India

**ABSTRACT:** Self-destructive ideation incorporates a wide scope of musings from fleeting thought to broad arranging or inadequate endeavours. The degree and effect of this emotional wellness issue make getting it general wellbeing needs. While talking about their ideations, many people regularly reference normal manifestations: feeling defenceless, feeling alone, over the top exhaustion, low confidence, the inclination that one's brain is hustling, or unreasonable spotlight on torpid objectives. Understanding the normal topics in self-destructive ideation can assist us with understanding the examples behind self-destructive musings, eventually prompting treatment and counteraction.

In existing work Clinical research towards understanding suicide has perceived a couple of peril factors. Mental disperses, for example, misery, schizophrenia, alcohol misuse, and substance abuse all expect a contributing activity. Also, the passionate pressure brought about by tormenting, relational connections, what's more, accounts is additionally significant components. In any case, these depictions of self-destructive ideation frequently catch a clinical perspective.

The Proposed model uses an approach of AI tools for extricating data from an assortment of data. This methodology can be used to discover normal subjects present in online posts, for example, discouragement, medicate use, or savagery. The possibility of "sadness" may be caught by an assortment of related words, for example, "torment", "emotions", "dread", "stress", and "languishing" and the model works on online and offline tweets which is collected from the tweeter API and which related to suicide ideation.

**KEYWORDS:** Tokenization, Affine, Lexicon, N-gram, Emoticons, SVM, KNN, RF

## I. INTRODUCTION

Suicide, the demonstration of causing one's demise, is the tenth driving reason for mortality in the United States and is assessed to cost 44.6 billion dollars every year. This downplays the seriousness of the iss ue, concerning each endeavored suicide [1]. Self-destructive ideation incorporates a wide scope of musings from fleeting thought to broad arranging or inadequate endeavors. The degree and effect of this emotional wellness issue make getting it general wellbeing needs [4].

While talking about their ideations, many people regularly reference normal manifestations: feeling defenseless, feeling alone, over the top exhaustion, low confidence, the inclination that one's brain is hustling, or unreasonable spotlight on torpid objectives [6]. Clinical research toward understanding suicide has perceived a couple of peril factors. Mental disperses, for example, misery, schizophrenia, alcohol misuse, and substance abuse all expect a contributing activity. Also, the passionate pressure brought about by tormenting, relational connections, what's more, accounts is additionally significant components [14]. In any case, these depictions of selfdestructive ideation frequently catch a clinical perspective [19]. With the ascent in complexity and acknowledgment of the web informal organizations, people thinking about suicide have progressively communicated their self-destructive ideation in web discussions, tweets, and other social media [18]. The outcome is a tremendous synergistic portrayal of considerations and inspirations related to suicide.

This model is an AI approach for extricating data from an assortment of data [22]. This methodology can be used to discover normal subjects present in online posts, for example, discouragement, medicate use, or savagery. The

possibility of "sadness" may be caught by an assortment of related words, for example, "torment", "emotions", "dread", "stress", and "languishing" [19]. In this paper, the model works on online and offline tweets which is collected from the tweeter API and which related to suicide ideation [8].

## II. RELATED WORK

Reilly N. Grant, AnaM. León, David Kucher, Daniela S. Raicu, Jonathan F. Gemmell, and Samah J. Fodeh(2018), This paper is evaluated suicide-related posts from a user on social media. To analyze the post, they use the clustering algorithm. A Reddit data is feed to clean words and phrases after that the data is a pass to word2vec which is used to create word vector. A k-mean clustering method is utilized to aggregate comparative expressions of Reddit information to find suiciderelated exercises. This paper endeavors to talk about the specialized and social points of view of the content mining investigation of Reddit information [1]. Bridianne 'Deaa, Melinda R., Philip J. B, Mark E. Larsena, Alison. Calearc, H Christensena (2018), this paper is a proposed online networking stage Twitter has been utilized by people to impart self-destructive musings and aims. To perceive how customers twitter, respond to a suicide-related substance when diverged from non-suicide-related substances. The pace of answer to the suicide-related posts was additionally specifically quicker than of the non-suiciderelated posts. Mean and the standard deviation is utilized to discover the pace of the answer [2]. Fatima Chiroma, Mihaela Cocea, Han Liu (2018), Right now, evaluated the show of four well-known machine classifiers, for example, RF, DT, NB, and SVM, in grouping suicide-related Tweets. The consequences of the trials indicated the best execution was F-proportion of 0.78 for the suicide-related correspondence (flippant and suicide classes). To improve the presentation of machine learning procedures for classification suicide-related correspondence, it's required to additionally analyze and look at the exhibition another machine learning strategies with the consequence of test. In this manner, we expect to examine the presentation of group learning draws near, which might be increasingly exact and strong, as appeared by another examination [3]. Jingcheng Du, Jianhong Luo, Yaoyun Zhang, Yuxi Jia, Cui Tao, Qiang Wei And Hua Xu (2018), This paper is proposed a Suicide was one of the fundamental wellsprings of passing in the USA.

Mental stressors are a noteworthy explanation for suicide. An acknowledgment of mental fatigue in an in peril people will support early balancing activity of reckless habits or suicide. The essential effort to remove mental fatigue from Twitter data using significant learningbased tactics. Connection with standard AI estimations indicates the prevalence of significant learning-based systems. CNN has been driving the introduction by recognizing suicide-correlated tweets with an exactness of 78.00% and an F1 extent of 83.00%, beating SVM, Decision Trees (DT), etc. RNN based mental fatigue affirmation secures the best F1 extent of 53.25% precise equal and 67.94% ambiguous facilitate, beating CRF. Furthermore, move picking up commencing clinical notes intended for the Twitter corpus beats the planning with Twitter corpus just with an F1 extent of 54.90% via equal caution.

## III. METHODOLOGY

The Proposed model uses an approach of AI tools for extricating data from an assortment of data. This methodology can be used to discover normal subjects present in online posts, for example, discouragement, medicate use, or savagery. The possibility of "sadness" may be caught by an assortment of related words, for example, "torment", "emotions", "dread", "stress", and "languishing" and the model works on online and offline tweets which is collected from the tweeter API and which related to suicide ideation.

Algorithm:

Step 1:- Retrieve Tweeter Dataset using tweeter API.

Step 2:- Applying Pre-processing. Removing Special Letters (), #tags (), URL () Basic English Words (), Rehashed Words ()

Step 3:- Replacing emoji's into word :) – happy, etc.

Step 4:- Replacing synonyms words with proper dictionary words

Step 5:- Applying Acronyms GM- Good Morning, etc.

Step 6:- Applying N-gram Model

Step 7:- Classify using multi-level classification



IV. EXPERIMENTAL RESULTS

Figures 1,2,3,4 shows the results of Suicide Tweets Detection on Twitter which is a social media platform and gives the results in three Aspects i.e. Positive, Negative, Suicide which shows sentiment accuracy. The sentimental accuracy details are calculated by the help of the tweets used in the twitter posts .These results can be seen in various formats like Bar chart ,Line chart and Pie chart.

Figure 1 Shows the sentimental accuracy details are calculated by the help of the tweets used in the twitter posts.



Figure 2 Shows the results in Bar Chart form

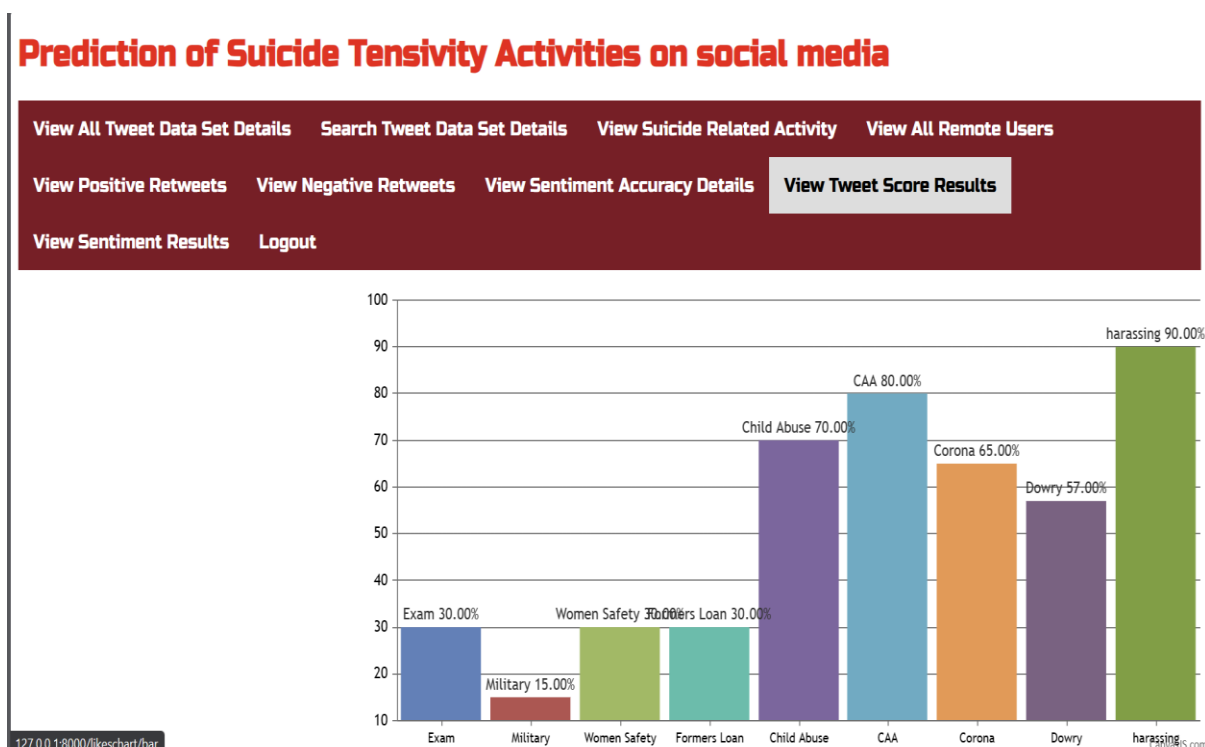




Figure 3 Shows the results in Line Chart form

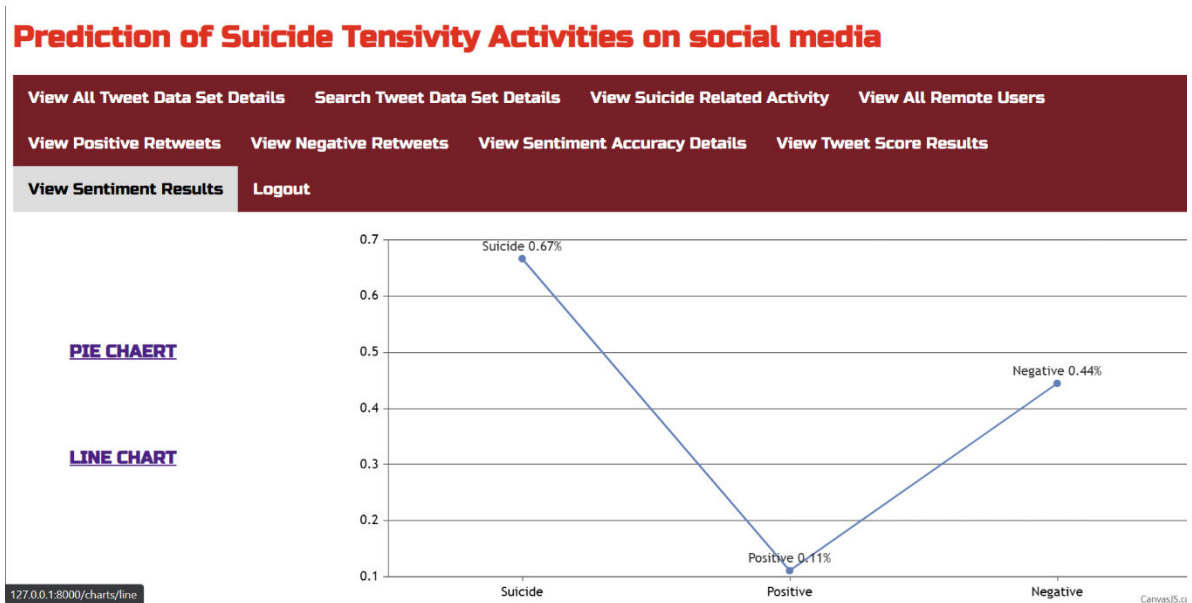
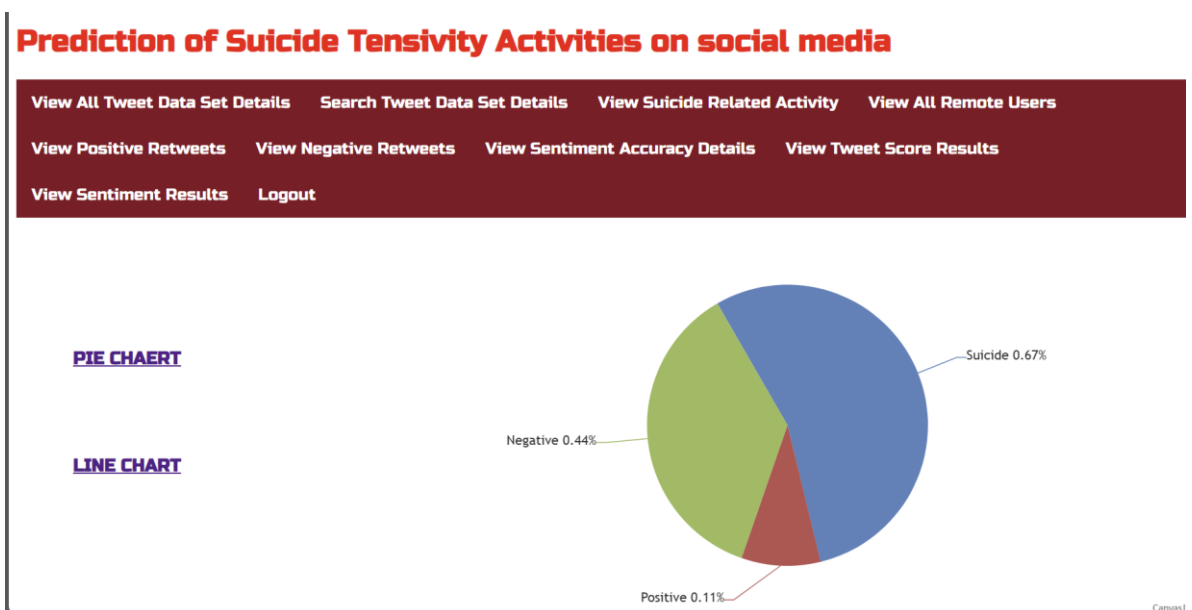


Figure 4 Shows the results in Pie Chart form



## V. CONCLUSION

In this work, consequently removed casual inactive subjects from tweeter which communicating self-destructive ideations. We first abstractly assessed the dormant subjects and afterward contrasted them with chance components. As from the results, Random Forest Classifier with N-gram Feature gives 93.33%accuracy. Proposed models are also used to predict the urgency of the posts. In the future, we will stretch out our investigation to other emotional wellness issues, for example, post -horrible pressure issues and wretchedness.



## REFERENCES

- [1] C. Singh and K. Antony, “Frauds in the Indian Banking Industry”, IIMB-2016
- [2] R. N. Grant, D. Kucher, A. M. León. F. Gemmell, D. S. Raicu, and S. J. Fodeh , “ Automatic extraction of informal topics from online suicidal ideation,” vol. 19, no. Suppl 8, 2018.
- [3] B. O. Dea, M. R. Achilles, M. E. Larsen, A. L. Callear, H.Christensen,and P . J. Batterham, “ The rate of reply and nature of responses to suicide-related posts on Twitter,” Internet Interv ., vol. 13,no. July, pp. 105–107, 2018.
- [4] U. Kingdom and U. Kingdom, “Text classification for suicide related tweets.”
- [5] J. Du et al., “Extracting psychiatric stressors for suicide from social media using deep learning,” vo l. 18, no. Suppl 2, 2018.
- [6] S. Ji, C. P . Yu, S. Fung, S. P an, and G. Long, “Supervised Learning for Suicidal Ideation Detection in Online User Content ,” vol. 2018, 2018.
- [7] P. Burnap, G. Colombo, R. Amery, A. Hodorog, and J. Scourfield,“Multi-class machine classification of suicide-related communication onT witter,” Online Soc.Networks Media, vol. 2, pp. 32 –44, 2017.
- [8]B. O. Dea, S. Wan, P. J. Bat terham, A. L. Callear, C. Paris, and H.Christensen, “Detecting suicidality on T witter,” INVENT, vol. 2, no. 2,pp. 183–188, 2015.
- [9]G. B. Colombo, P . Burnap, A. Hodorog, and J. Scourfield, “Analysing the connectivity and communication of suicidal users on twitter,”Comput . Commun., 2015.
- [10] G. Coppersmith, M. Dredze, and C. Harman, “Quantifying Mental Health Signals in Twit t er.”
- [11]M. Gamon and S. Counts, “ Predicting Depression via Social Media,”vol. 2, pp.128–137.
- [12] P.Arptha, P. .. (2018). Market Basket Analysis for Data Mining :Concepts and Techniques. IJESC.
- [13]Said A. Salloum, M. A.-E. (2017). Mining Social Media Text: Extracting Knowledge from Facebook. International Journal of Computing and Digital Systems
- [14] Mostafa A Emran, K. S. (2017). A Survey of Text Mining in Social Media: Facebook and Twitter Perspective . ResearchGate.
- [15]Jyoti Ramteke, D. G. (2016). Election Result Prediction Using Twitter sentiment Analysis.



INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

 9940 572 462  6381 907 438  [ijirset@gmail.com](mailto:ijirset@gmail.com)



[www.ijirset.com](http://www.ijirset.com)

Scan to save the contact details