Chapter 6. Conclusion and Future Scope

This chapter presents the conclusion of the research in section 6.1. Limitation of the proposed research is discussed in section 6.2 and finally future scope is defined in section 6.3.

6.1 Conclusion

The advancement in social networking tools and applications make them prominent among different domain. User opinion on these tools has touched huge dimension. Nowadays, NLP and deep learning based techniques playing a vigorous role. During this research a novel hybrid deep learning techniques based model is created to create an association among the textual data.

During this research 2935 records fetched from the Web of Science database of 1989 - 2021were subjected to bibliometric study, which included year-wise production and citation, most productive country and organisations, source journals, top contributing authors, keywords occurrence.

In this research we work on rumour detection task by developing a deep hybrid approach. The proposed approach contains (i) dataset collection (ii) data preprocessing (iii) feature extraction (iv) text classification.

Our proposed model work with custom embedding under CNN, BiLSTM and BiGRU algorithms. Extracted features are transmitted to sigmoid activation function for classification. Fake news dataset is used for experimental purpose and then the comparison of proposed method is done with work done so far. We achieved 99% classification accomplishment with our proposed hybrid model.

We investigated with many machine and deep learning techniques and described results on fake news dataset.

The aforementioned results define the word embedding methods enhance the classification outcomes of the method (CNN+BiLSTM+BiGRU) for classify tweets among rumour and non-rumour.

6.2 Shortcomings

The proposed method has the subsequent shortcomings:

1. The research only used textual features for classification. However the enclosure of other features might yield more vigorous outcomes.

2. Only English text used for experiment purpose.

6.3 Future scope

1. In accumulation to textual features, another kinds of feature such as images as well as contextual can be considered for getting proficient outputs.

2. Further experiments performed on text data including linguistic perspective.

3. Explore deep learning methods for detection of rumour.

Moreover for bibliometric analysis the data is selected only from the Web of Science. It might be possible many studies on the rumor detection are published in other journals and not accessible via Web of Science. Future bibliometric analysis in this area may observe numerous journals and other accessible databases such as Scopus, Google Scholar, EBSCOhost, and many more. Further research may achieve improved results by comparing various terms like rumor and techniques, rumour and framework and further analysis is done on each term separately. Future research may consider co-citation analysis of another terms not covered through this research.