|  |  |  |  |
| --- | --- | --- | --- |
| Title | Fake news detection based on deep learning | | |
| Author(s) Name | Ashfia Jannat Keya, Shahid Afridi, Afroza Siddique Maria, Snaha Sadhu Pinki, Joy Ghosh, MF Mridha | | |
| Contact Email(s) | firoz.mridha@aiub.edu | | |
| Published Journal Name | International Conference on Science & Contemporary Technologies (ICSCT) | | |
| Type of Publication | Conference | | |
| Volume |  | Issue |  |
| Publisher | IEEE | | |
| Publication Date | 2021/8/5 | | |
| ISSN |  | | |
| DOI | 10.1109/ICSCT53883.2021.9642565. | | |
| URL | https://ieeexplore.ieee.org/abstract/document/9642565 | | |
| Other Related Info. |  | | |
|  | | | |

|  |  |
| --- | --- |
| Abstract |  |
| Fake news is invalid and misleading information that is conveyed as accurate news. Fake news detection has become indispensable in modern society because of the extreme propagation of false news on social platforms and news portals. Several studies have been released that use fake news on social platforms instead of news content for decision-making. Therefore, this paper introduces an automated model for detecting fake news relying on Deep Learning (DL) and Natural Language Processing (NLP) for a low-resource language like Bangla, utilizing news content and headline features. We propose an ensemble approach of Convolutional Neural Network (CNN) and Gated Recurrent Unit (GRU) with a pre-trained GloVe embedding method that achieved an accuracy of 98.71% on the test data. For comparison, the combination of Long short-term memory (LSTM) and CNN with Globe is trained using the same dataset and parameters. We also experimented on a benchmark dataset containing English news with our suggested model and achieved an accuracy of 98.94%. Our model’s performance is evaluated using diverse evaluation metrics, including accuracy, recall, precision, fl-score, etc. | |