

DECLARATION

We, hereby, declare that the work presented in this report is the outcome of the investigation performed by us under the supervision of **Arifur Rahaman, Lecturer**, Department of Computer Science and Engineering, Sonargaon University, Dhaka, Bangladesh. We reaffirm that no part of this Thesis and thereof has been or is being submitted elsewhere for the award of any degree or diploma.

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ABSTRACT

Sentiment Analysis also known as Opinion Mining is a field within Natural Language Processing (NLP) that builds systems that try to identify and extract opinions within text. Currently, sentiment analysis is a topic of great interest. Since publicly and privately available information over Internet is constantly growing, a large number of texts expressing opinions are available in review sites, forums, blogs, and social media. IMDb is an online database of information related to films, television programs etc. which also allows people to share and express their views. This project involves classification of IMDb movie reviews into positive, neutral or negative. Naive Bayes algorithm will be used to develop a machine learning model which will predict the sentiment of the reviews. A sarcasm detection model is used as a subtask to increase the accuracy of sentiment analysis model.

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LIST OF ABBREVIATIONS

AI	Artificial Intelligence
BoW	Bag of Words
IMDb	Internet Movie Database
NLP	Natural Language Processing
NLTK	The Natural Language Toolkit
NLU	Natural Language Understanding
RE	Regular Expression
TF-IDF	Term Frequency-Inverted Document Frequency