MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA245 – MINI PROJECT

PRO FORMA FOR THE APPROVAL OF THE THIRD SEMESTER MINI PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Mini Project Proposal No :
(Filled by the Department)

Academic Year : 2021-2022
Year of Admission : 2020

1. Title of the Project : Political Opinion Mining For Popularity Prediction
2. Name of the Guide :
3. Number of the Student: MES20MCA-2003
4. Student Details (in BLOCK LETTERS)

	Name	Roll Number	Signature
1.	AKSHAYKUMAR .M. R		03

Date: 01/12/2021

Approval Status : Approved / Not Approved

Signature of Committee Members

Comments of The Mini Project Guide Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of The Project Coordinator Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Dated Signature of HOD

POLITICAL OPINION MINING FOR POPULARITY PREDICTION

AKSHAYKUMAR.M.R

Introduction:

The proliferation of social media in the recent past has provided end users a powerful platform to voice their opinions. One such application is in the field of politics, where political entities need to understand public opinion and thus determine their campaigning strategy. Also by the help of this popularity of a person can be predicted in Politics also which will help the party to understand the sentiment and opinion of public about their party member which can help them in wining a election. Sentiment analysis on social media data has been seen by many as an effective tool to monitor user preferences and inclination. This research proposes an approach that is based on Twitter based Political opinion mining for predicting the popularity of a person on a given set of Tweets containing varied opinion. The objective is to extract expressions of opinion and predict the personality of political member by classifying them as positive or negative; also this system is going to encounter Hinglish language which is mash up of Hindi and English language. This approach applies deep learning techniques to the task of sentiment analysis and opinion mining. In order to this recurrent neural network (RNN) is used. In this research Long Short-Term Memory Units are used and a full Tensor flow based Opinion and Sentiment classifier is made at the end. This approach is going to use the concept of Sentiment Analysis i.e. tracking opinion of public, which uses the natural language processing and extract the information like either public's view is positive or negative which can be used further to predict popularity of political party member. The data that is to be taken here is from twitter tweets.

Objectives:

Opinion mining sometimes also referred as sentiment analysis, it can be used for natural language processing. By the help of opinion mining mood of public about any product and person can be tracked. This process involves building a system which collect and categorize opinions about a person's popularity. Attitudes and feelings of public are tracked in an opinionated document with classifying it as either positive or negative according to the sentiment expressed in it. Automated opinion mining uses machine learning to mine text for sentiment.

Problem Definition:

Besides the challenges traditional sentiment analysis systems face additional difficulties like Short Length of text, Spelling Mistakes ,Special tokens like URLs, emoticons, Diversity of content, Different style of Language, Multilingual content, Slang words. Some approaches of sentiment extraction are based on supervised Learning, & unsupervised methods as well. In recent survey following are the methods that were explained for political opinion mining based on popularity Naïve Bayes **t**his algorithm is based on Bayes theorem which uses conditional probability by counting the frequency of values and combinations of them in a data set. Text categorization works well with this approach. Support Vector Machine transform text into the format which matches into input of machine learning algorithm input. So this process includes pre-processing and transformation on text documents. SVM has been proved one of the powerful learning algorithms for text categorization. Decision trees classify the data by hierarchically sorting them based on feature values. Most commonly used models for feature extractions are entropy and information gain measure. Maximum Entropy classifier is another model which performs probabilistic classification, making use of the exponential model. One major advantage of this classifier is that it makes no conditional independence assumption on the features of the documents to be classified, given a sentiment class. Hence, it is applicable to real-life scenarios, unlike in case of Naive Bayes.

Basic functionalities:

Data Collectoin, Data Labelling, Training, Testing, Output Generation

Tools / Platform, Hardware and Software Requirements:

Hardware specification:

- Processor : Intel Pentium Core i3 and above
- Primary Memory : 4 GB RAM and above
- Storage : 500 GB hard disk and above
- Display : VGA Colour Monitor
- Key Board : Windows compatible
- Mouse : Windows compatible

Software specification:

- Front end : Python
- Back end : MYSQL
- Operating system : windows 7 and above
- IDE : Visual Studio Code, PyCharm
- Others : HTML,CSS